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ABSTRACT

This ESEA Title III document synthesizes three reports from regional workshops held between September 1969 and January 1970. The topics concern issues discussed at these workshops. The first two papers, reflecting a consensus of workshop participants, indicate the essential conditions that should exist within State educational agencies to facilitate creative educational changes, and provide recommendations that State agencies can use to improve ESEA Title III programs. The third paper describes strategies for assessing educational needs in the cognitive, affective, and psychomotor domains. The document also includes presentations made by speakers at the various conferences and an evaluation based on questionnaires used before and after each conference. An appendix summarizes conference participation by State. (DE)

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EDUCATIONAL CHANGE THROUGH STATE LEADERSHIP

ESEA TITLE III

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In the preparation of this publication, special appreciation must go to various members of the Title III family, both at the U. S. Office of Education and at State departments of education throughout the country, and to other interested persons who gave liberally of their time and interest. These include Dr. O. Ray Warner, Chief, State Plans for Educational Innovation Branch, U. S. Office of Education, who was responsible for general planning and arrangements, and members of his staff: Dr. William Gruver, Mr. William Hinze, Dr. Thomas Wikstrom, Mr. Joseph Donahoe, Dr. James Aven, and Mr. John Powers. They also include Dr. Norman E. Hearn, Chief, Program Analysis and Dissemination Branch, and Dr. David Iwamoto, who were responsible for preparing an evaluation of the three regional meetings.

They include, as well, Mr. Leo Howell, Mr. John Kennedy, and Dr. George Smith, representing the host states, Florida, Pennsylvania, and Arizona, respectively; and the General Chairmen of the Conferences, Dr. John Goode and Mr. Phil Zarlengo for Region I; Mr. Leo Howell, Dr. Jack Baillie, and Dr. Russell Working for Region II; and Dr. George Smith, Dr. Walt Turner, and Mr. Kenneth Lindsay for Region III. Contributing to the successful functioning of the regional meetings were the Workshop Chairmen, Dr. Mark Scurrah, Mr. John Billman, Mrs. Frances Meginnis, Dr. Goode, and Mr. Zarlengo for Region I; Mr. Max Morrison, Dr. Baillie, Mr. Don E. Goodson, Mr. Russell Way, Mr. Howell, and Dr. Working for Region II; and Mr. Paul Killian, Mr. Clarence Mellbye, Mr. Mel Powell, Dr. Smith, Dr. Turner, and Mr. Lindsay for Region III. Particular mention must also be made of the work of the report chairmen, Dr. Don Gann, Mr. Zarlengo, and Mr. Powell on educational needs assessment; Dr. Roger Richards, Mr. Mellbye, Mr. Lindsay, Dr. Working, and Mr. Tom Olson for change strategies; and Mr. Billman, Dr. Will Atwood, and Dr. Turner for educational accountability.

Appreciation must also go to Dr. James Hazlett, Chairman of the President's National Advisory Council and Administrative Director of the National Assessment Program, Denver; Dr. Leon Lessinger, formerly Associate Commissioner for Elementary and Secondary Education, U. S. Office of Education, and now Calloway Professor of Urban Education, Georgia State University in Atlanta; Mr. B. Alden Lillywhite, Deputy Associate Commissioner for Elementary and Secondary Education, U. S. Office of Education; Dr. W. James Popham, of the Center for the Study of Evaluation, University of California; Mr. Thomas B. Clemens, Chief, Research Utilization Branch, Office of Information Dissemination, U. S. Office of Education; and Mrs. Helen Pate Bain, member of the President's National Advisory Council and President-elect of the National Education Association.

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Dorsey Baynham, Editor.

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This report is a synthesis of three others. As such, it has evolved from the grass roots. Into it has gone summary recommendations from three Title III ESEA regional meetings held between November 17 and December 12, 1969. Into it has also gone a sharing of problems and ideas relating to certain key educational issues by participants from each of the fifty states, the District of Columbia, the Virgin Islands, Guam, Puerto Rico, the Trust Territory of the Pacific, American Samoa, and the Bureau of Indian Affairs. These issues are uniquely the concern of the U. S. Office of Education, Title III State coordinators, Title III State advisory committees, and Chief State School Officers. It was for these educators and school patrons that the conferences were designed.

It should be stated at this point that the regional meetings, in their entirety, could be referred to as workshops. That is what they were. They are occasionally referred to, here, as conferences merely for convenience in distinguishing between them and the separate workshops held on each of three days during their five-day schedules of activity.

Planned around the theme of "Facilitating the Creative Educational Change Process Through Effective Management," the meetings were hosted by the ESEA Title III offices of the States of Florida, Pennsylvania, and Arizona. The first conference was held at Fort Lauderdale on November 17-21 for midwestern and southern States; the second, at Philadelphia on December 1-5 for northeastern States; and the third, at Phoenix on December 8-13 for far western and southwestern States.

Major issues explored were concerned with the following: (a) the essential conditions which should exist in State educational agencies to facilitate creative change; (b) the understanding and competency required in the operation and management of Title III programs to provide educational accountability; and (c) the strategies which could contribute to State staff development, educational needs assessment, and evaluation and dissemination to complete the FY 1970 Title III State Plan requirements.

In addition to exploration of these issues, the conferences had several other purposes. They included: providing orientation for new Title III coordinators and new State advisory council members, providing opportunities to discuss individual State problems, and increasing understanding and competency in the development of strategies and techniques for evaluation and dissemination, generally. These latter three objectives were accomplished on the first day of each regional meeting through presentations made by Dr. O. Ray Warner, Chief, State Plans for Educational Innovation Branch, U. S. Office of Education, and his staff.

Back of the conferences, of course, lies the recent history of Title III. Primary responsibility for this section of the Elementary and Secondary Education Act of 1965--often referred to as PACE (Projects to Advance Creativity in Education)--passed from the U. S. Office of Education to State education agencies, as a result of amendments to the Act, on July 1, 1968. At that time, USOE organized to provide leadership for State planning through the State Plans for Educational Innovation Branch of the Bureau of Elementary and Secondary Education.

Through the planning and coordination of this branch, conferences were held in mid-1968 in each of Title III's three regions to facilitate State management in the initiation and implementation of innovative educational programs. These conferences earned unqualified approval by participants. In the fall of 1969, accordingly, it was deemed important to have additional meetings for discussion of emerging problems and concerns and for analysis--after some eighteen months of State operation--of key issues. A planning committee, made up of representatives from various States, then met on September 1, 1969, to draw up directions for the meetings. This committee gave the State Plans for Educational Innovation Branch the charge to develop conference objectives and format. Responsibility for overall planning was accepted by Dr. O. Ray Warner, Chief of that branch, and for supporting activities, including evaluation of the meetings, by Dr. Norman E. Hearn, Chief, Program Analysis and Dissemination Branch. Host states for the regional conferences were Florida for Region II, Pennsylvania for Region I, and Arizona for Region III.

The mechanics of the regional conferences called for dividing the total meeting memberships into small workshop groups of six to ten persons to allow the greatest possible involvement and communication. Three days of each conference were devoted to consideration of the three major issues, one issue each day, by the workshop groups. The groups, as far as possible, represented a geographical and occupational mix.

At the end of each workshop, each group chairman turned in the results of his group's deliberations to a report chairman--one assigned to each of the three major issues--whose duty it was, in turn, to report to the general conference membership on the last day of the conference a consensus of the workshop deliberations.

In January, 1970, the report chairmen convened in Washington to consolidate reports developed at the workshops and to develop papers which would reflect the thinking of the States on the various issues involved, particularly on how these issues related to Title III ESEA. In so doing, the report chairmen worked toward objectives embodying the issues, already alluded to in this introduction, as follows:

(a) development of a paper indicating the essential and desirable conditions, as determined by a consensus of the conference participants, which should exist in State educational agencies to bring about creative educational changes in the States;

(b) development of a paper reflecting a consensus of workshop participants, which can be used by State educational agencies to improve Title III ESEA programs through educational accountability;

(c) development of a paper which describes strategies for assessing educational needs in the cognitive, affective, and psychomotor domains.

In this report, the sections immediately following are concerned with these objectives. Each section reporting the results of workshop deliberations begins with a list of recommendations derived from workshop consensus.

This report also includes presentations made by speakers at the various conferences and an evaluation based on pre- and post-conference questionnaires. Finally, it includes an appendix which summarizes conference participation by each of the States.

Workshop I

Objective: To develop a paper which indicates the essential and desirable conditions, as determined by a consensus of the workshop participants, which should exist in State educational agencies to bring about creative educational changes in the State.

RECOMMENDATIONS

1. State educational agencies should encourage support of innovative ideas or reinforce and expand innovative efforts through stipends, grants, teacher exchanges, etc.

2 State educational agencies should assume the initiative in needs assessment, not only at their own level but at the local agency level as well.

3. State educational agencies should create a management information system for their own use.

4. State educational agencies should develop flexible staffing which will be representative of the skills and specializations needed in educational change.

5. State educational agencies should require staff development programs to improve leadership capabilities.

6. State educational agencies should develop special programs to improve evaluation and dissemination at both the state and local level by

   a. providing staff development in the areas of evaluation and dissemination,
   b. focusing on the use of evaluative data to improve funding operations,
   c. coordinating State efforts in evaluation and dissemination,
   d. focusing on evaluation and dissemination as aids in the decision-making process.

7. State educational agencies should encourage or require continuing staff development programs which are focused on local educational agency needs.

8. State educational agencies should develop a planning unit which will

   a. evaluate its own organization and function in relation to its varied roles,
   b. improve cooperation and coordination between State and local agencies through use of resources of both.

9. State educational agencies should develop programs of information exchange and involvement with communities.

10. State educational agencies should fund projects which are designed to develop better school-community involvement.

11. State educational agencies should give local educational agencies support for development of successful models for visitation, dissemination, and demonstration.

12. State educational agencies should seek cooperative involvement with colleges and universities to promote improved teacher education programs and research which is sensitive to current educational needs.

Any analysis of the functions performed by State educational agencies must rest on two assumptions: First, that despite the operational distance between the State agency and the local school, these two institutions share a primary concern--the student and his educational welfare. And, second, that the State educational agency can no better escape today's rapid and pervasive social and technological change than can other public organizations; accordingly, rather than wait to be overtaken, it should instead initiate and manage change in the most effective manner.

From these assumptions, development of State education department capability for functions associated with the change process begins with a systematic identification of desired conditions for change as well as of constraints and barriers thereto. It then continues with identification and implementation of the processes designed to facilitate the department's role as a change agent.

Recommendations for facilitating change have been given in the immediately preceding, twelve-point list. As an assembly of spokes must be attached to a hub, the twelve points, however, must be fixed to a center of prerequisite characteristics on the part of the State agency. These include comprehensive, adaptive, and open systems, designed for equal educational opportunities, humanistic rather than mechanistic, and flexible enough to allow priority changes within variable time schedules.

The process of identifying barriers to desirable change begins with recognition of typical resistance to change as change. It is easier and more comfortable to follow traditional, hence fixed, procedures. It is no accident that State educational agencies today, whether striving to cope with change or not, are burdened with an image which outlines them as passive, supervisory, and regulatory agencies, exerting little if any leadership. On the other hand, in some instances where leadership has been attempted, it has been resisted by local educational agencies and, on occasion, by segments of the State agency, itself.

Turning to other barriers, inefficient educational management systems at both the State and local levels constitute part of current conditions which must be corrected to effectively and efficiently institutionalize change. Fragmentation in the organizational structure of State agencies leads to duplication of function and poor interagency communication. Lack of specialists trained in the myriad tasks of facilitating change has led to considerable running in place and trials marked by considerable error. The growing interest and effort in Title III, ESEA, staff development programs offers a model which other elements of State and local agencies could profitably replicate.

Research and development activities have not as yet been widely adopted or adequately supported. Here, again, aspects of research and development activities demonstrated by Title III suggest strengths which could be realized by other sections of State and local education agencies.

The lack of fully developed needs assessments at State and local levels prevents construction of context information bases needed, in turn, to provide objective evidence in setting up specific goals and procedures for effecting change.

The unequal distribution of educational resources, as evidenced by so-called rich or poor districts, inhibits widespread change. It is possible that State agencies could use districts which do have the necessary resources for research and development as vehicles for bringing about Statewide change.

Related to inadequate resources is the meager skill demonstrated by the educational community in working effectively with the community-at-large to create support for bringing about desirable change. Initial steps in correcting this situation, however, have been taken by Title III advisory groups and councils. Such steps should be followed by other members of the educational community.

Dissemination efforts are often deficient or misdirected, by-passing many relevant target audiences. The awakened interest in audience identification, user analysis, and further definition of local State and Federal roles in disseminating appropriate information regarding change should provide impetus for designing dissemination systems which will remove this constraint.

In the identification of constraints, it may escape notice that various barriers could be converted into facilitators of change. Into this category falls the one-dimensional sense of responsibility characteristic of many local districts and a consequent lack of district coordination and cooperation. The strong self-motivation often characteristic of local districts, however, is a strength which State agencies, with appropriate attitudes and procedures, may build upon. Also falling into this category, but perhaps less clearly so, are the isolated pockets of change within an educational system, whose very isolation may be seen as evidence of poor implementation systemwide. Once an entire system is involved in the change process, however, any such individual areas of change may act as spurs to speedier realization of desired ends.

Conservatism both imposes constraints and serves as a strength in bringing about change. In restrictive legislation and insufficient financial support, conservatism sets up a barrier. In guarding against gross, disruptive change, it adds stability to the change process.

Social conflict often prevents long range educational planning and forces educators to devote their time and energy to putting out fires rather than to designing and implementing the very plans which will mediate conflict. At the same time, however, conflict holds up a mirror to problems for which solutions must be found.

Another barrier related to social conditions is the increased mobility of our population, which acts to disrupt orderly and lasting change. Mobility of peoples, however, can also assist in the spread of innovative ideas if properly dealt with.

In summary, commitment to educational improvement by State agencies should include a strategy for organizing various agency components in an orderly approach to constructive change. The first step in the change process must be an assessment of current programs measured against performance standards that serve as realistic educational goals. The functions of the State educational agency must necessarily include a mechanism that will generate the kind of information upon which decisions may be based. This will provide a foundation for designing program strategies related to needs that have been identified as inadequately served by current programs. A State education agency must hold itself accountable for improving the system of education for which it is responsible.

Workshop II

Objective: To develop a paper, reflecting a consensus of the workshop participants, which can be used by the State educational agencies to improve the ESEA Title III program through educational accountability.

RECOMMENDATIONS

Measurement

1. State educational agencies should require that objectives--whether in cognitive, affective, or psychomotor domains, as dictated by the nature of a project--be stated in measurable terms, with performance specifications.

2. State educational agencies should require that appropriate measurement procedures and instruments be employed to determine the degree to which each objective is accomplished and that such procedures and measurements not be restricted to standardized tests but include subjective judgments, logs of critical events, descriptive incidents, follow-up studies, check lists, etc.

3. State educational agencies should require continual evaluation of project activities so that program modifications can be designed for maximum effectiveness.

4. State educational agencies should require annual outside educational audits of all projects and agreement between internal and external evaluation results.

Management

5. State educational agencies should require that project personnel be adequately trained to perform their tasks and that they devote their contractual time and effort to project activities.

6. State educational agencies should require a clearly projected time line of activities and results.

7. State educational agencies should require well defined channels of communication with boards of education, school administrations, teachers, and lay publics.

8. State educational agencies should require evidence of commitment to the support of successful practices by grantees.

General Implementation

9. State educational agencies and grantees should jointly implement procedures which will insure that practices which are demonstrably successful will be continued not only in the districts of the grantees in question but in other school districts within the State.

For the purpose of the workshops, accountability was defined as that act whereby any school agent accepting a grant is held responsible for performing according to the terms of the grant. This definition implies achieving the proposed objectives within the time period or periods specified, within the budget limitations designated, and according to the standards established.

While not stated in the integrated report on accountability, implicit in the individual conference reports were varying degrees of reservation, an expressed need for greater understanding of the term and its implications, and a call for caution in procedures leading to adoption of this currently provocative concept.

Accountability accompanied by a determination of cost effectiveness was seen as appropriate for conventional programs but as possibly posing a threat to innovative programs characteristic of those under Title III. This would be true, at least, where there is a generally fuzzy or invalid notion about the nature of innovation and research. Concern was also expressed over application of the concept of accountability to programs having to do with the affective domain and over increased dehumanization in education in general.

At the same time, there was general acceptance of the basic idea and recognition that procedures for educational accountability are developing in all areas of education. It was acknowledged that educational goals have often been stated in vague, global terms and educational evaluations made only through standardized tests or subjective judgments. As stated in one conference report, "The need to define precise objectives, to be attained by specific action, has typically gone unrecognized."

The unrecognized need for accountability to education's clients, according to some conference participants, may be the culprit responsible for inequality of educational opportunity, for frequency of bond issue failure, for inadequate preparation for the world of work by large numbers of America's youth, and even, perhaps, for the widening gulf between students and schools. Statistical reporting of per pupil expenditures in terms of ADA, student-teacher ratio, and teachers' salaries were seen as not significantly related to educational achievement.

In exploring the implications of educational accountability, conference members examined a list of eleven performance areas, including:

1. analysis of needs
2. statement of measurable performance objectives
3. selection and assignment of staff
4. project management
5. selection and use of resources
6. logistical or PERT planning
7. program operation
8. evaluation of outcomes or product against performance criteria

9. evaluation of operational process and project management
10. cost effectiveness determination
11. demonstration and dissemination

The list, it was said, is generally common to State Title III staffs, with the noteworthy exception of cost analysis determination. Since State supervision for the past year, however, has been requiring measurable objectives and since projects characterized by global objectives can ordinarily be expected to phase out this coming June, it seems reasonable to predict that formal accountability will be a component of Title III programs by June, 1971.

In planning for accountability, State educational agencies should establish, for the operation of all projects, guidelines and criteria which fall into three categories: measurement, management, and general implementation. Specific steps under these categories were outlined in recommendations listed on preceding pages. A more general but important recommendation calls for clearly defined lines of administration of Title III established in the U. S. Office of Education, in State education agencies, and in local projects. Such a step would safeguard accountability at the various operational levels of Title III programs.

In summary, there was general agreement that ongoing school programs can and should be subject to accountability. Some innovative programs, however, by their very nature, cannot function within the same boundaries. Accountability in research takes the form of integrity of purpose, procedures, and evaluation. Finally, any attempt to install strict accountability on a crash basis--as crash programs imposing other educational concepts have amply demonstrated--would not only be unwise but might guarantee failure of accountability's primary purpose.

Workshop III

Objective: To develop a paper which describes strategies for assessing educational needs in the cognitive, affective, and psychomotor domains.

RECOMMENDATIONS

1. A needs assessment should be learner-oriented, that is, focused on the behavioral needs of children.

2. A needs assessment should include the affective and psychomotor as well as the cognitive domain.

3. State agencies should begin to address themselves to the task of developing competencies which will allow them to tackle the affective and psychomotor, as well as the cognitive domain.

4. Local educational agencies should have both the prerogative and the responsibility for assessing their own needs and devising strategies to carry out the assessments.

5. Planning a needs assessment should be preceded by determination of who should be involved in the planning, including personnel who will conduct the assessment studies and, at some point, representatives of all groups who will be users of the assessment results.

6. Planning a needs assessment should include a determination of required resources, including advisory personnel, assessment costs, available strategies, and existing sources of data.

7. A strategy for a needs assessment should include:
    a. development and/or selection of goals and objectives,
    b. design of instruments for data collection,
    c. determination of a means for precise analysis of data.

8. A needs assessment should be planned so that information will be available for decision makers as they need it.

9. A needs assessment must include both reliability and validity checks of data collected.

10. A needs assessment should include instrumentation appropriate for specific subpopulations, rather than the same administration for all respondents, regardless of background.

11. A needs assessment should refer to a variety of data sources, with special attention to timeliness, accuracy, and manageability (accessibility and usefulness) of data.

This report was developed around the nine topics on needs assessment provided by the U. S. Office of Education for discussion at the conferences. The nine topics explored were:

1. nature and extent of planning
2. who should be involved in planning
3. what resources are necessary to conduct an assessment
4. actual design of a strategy
5. designing instruments for data collection
6. process of collecting information
7. analysis of data
8. determining reliability and validity of data
9. translation of information into critical educational needs

These topics are taken up, one by one, in the paragraphs which follow.

The nature and extent of planning should encompass the other eight topics listed. The planning should include a formulation of the theoretical base for needs assessment and clear definitions of the objectives and the scope of assessment. Emphasis should be placed on both short-range and long-range strategies. A realistic timetable should be built into the plan to provide for results at the time they are needed for decision-making. And, finally, the plan should include the necessary logical linkage between assessment, evaluation, and dissemination.

Returning to topic two, concerned with personnel involved in the planning, the work groups felt, in general, that representatives of all groups of persons who were to be users of the needs assessment results and all persons whose specific skills would be required in conducting the needs assessment studies should be involved at one time or another in the planning. The latter groups should be involved, in particular, in a critical review and possible modification of final plans. These groups might include:

a. appropriate representatives of State educational agencies, including persons responsible for administering State- and Federally-supported programs,
b. appropriate representatives of USOE,
c. appropriate representatives of local educational agencies,
d. representatives of professional organizations,
e. appropriate consultants (e.g., university-based evaluation specialists),
f. representatives of school boards of education,
g. representatives of State advisory councils for Title III,
h. representatives of State boards of education,
i. appropriate legislators and their staff consultants.

It might be desirable to have a Needs Assessment Steering Committee to monitor, review, and revise strategies on a regular basis.

Financial resources for use in planning and implementing a needs assessment might come from a variety of State and Federal sources. The possibility of a cooperative effort among State educational agencies in planning for needs assessments, including a pooling of financial resources, should be explored.

Other resources contributing to the planning and implementing of a needs assessment should include personnel from various agencies and special ad hoc groups which in the past had been especially concerned with needs assessments, existing strategies used in needs assessments, literature related to the subject, both technical and popular, and existing sources of data.

Special competencies in system design, survey research design, statistics and measurement theory, sampling, and data processing will be necessary in the planning stages. Special competencies in developing behavioral objectives, survey research, statistics, sampling, and data processing will be necessary in conducting the assessment. Particular emphasis should be placed on having the data processing hardware and software necessary for timely treatment of the data.

In considering the actual design of the strategy followed, it should be pointed out that needs assessment strategies typically have identified only deficiencies in student learning if, indeed, they were concerned with students at all. In planning for assessment, it is desirable to include the entire range of student achievement, i.e., various types of students in all areas of learning at all levels of achievement. This would provide for student successes as well as student deficiencies. If particularly successful programs could be identified, the assessment strategy might provide alternatives to meet particular needs, in a diffusion/adoption process.

A strategy for assessing educational needs should include the following steps:

a. The development and/or selection of student learning goals and objectives by the educational system. The objectives should be (1) behavioral; (2) measurable; (3) representative of cognitive, affective, and psychomotor domains; and (4) should include a time restraint, that is, a specification of the length of time required to achieve a given objective or set of objectives.

b. The collection of data about objectives. These data would fall into two categories: (1) Perceptions as to the relevance/importance of particular objectives as far as students--identified by grade, age, sex, ethnic group, and urban or rural residence--and consumers of the educational product--grossly categorized as parents, former students, employers, colleges, universities, and vocational and technical schools--are concerned; and (2) the criterion-referenced test results of the extent to which objectives have already been achieved.

c. The analysis of data. These data are analyzed and ranked according to their relevance/importance and the extent to which they have been achieved.

d. The use of data. The results are submitted to the educational policy-makers, who then determine what actions are to be taken in respect to the identified needs.

In designing instruments for data collection, consideration must be given to three different types: the statements of objectives, themselves; the criterion-referenced tests, designed to measure the extent to which the objectives have already been achieved; and instruments designed to measure the perceptions of relevance and importance by different groupings of students and so-called consumers. Where it is appropriate to do so, data collection instruments should be field tested prior to actual use.

The processes of collecting and analyzing data were covered by two brief statements. In connection with the first, specifications of actual procedures used must wait upon adoption of an overall strategy. In connection with the second, this is a highly technical function in statistics and data processing which, again, can be spelled out only after comprehensive plans have been adopted for the needs assessment.

It may go without saying that both reliability and validity should be built into the strategy design for assessing needs. In this connection, the concept of validity may be the more difficult to pin down. Here, too, however, the rationale of identifying "consumers" may be apt. Persons who have had first-hand experience with specific products of a school system may be considered as "experts" in judging the product involved. Criterion-referenced tests, also, can contribute to validity in their function of determining what students already know. A third possibility exists in making comparisons between existing data and the results of the needs assessment.

In turning to translation of information into critical educational needs, a distinction must be made between collecting information to be used in making decisions and in the decision-making process, itself. It may be that to the development of a strategy for making a needs assessment should be added a strategy for increasing the likelihood that the information will, in fact, be used. To determine which institutions and agencies are the potential users of the assessment results, it is desirable to determine which are responsible for meeting various needs. At the State level, the State Department of Education is responsible for providing Statewide results to the State Board of Education and, perhaps, for recommending courses of action based on an interpretation of results.

In summary, there was general agreement that a needs assessment should be learner-oriented and include the affective and psychomotor domains as well as the cognitive. Stating needs strictly in terms of institutional requirements, it was said, would be disastrous to the maintenance of public support for the educational enterprise. There was also general agreement on the direct relationship between learning objectives and statements of need.

A needs assessment, it was agreed should be broader in perspective than Title III, alone, could make it. It should be instead a continuing effort, producing information for decision makers as needed. Needs assessments are essential steps in making any significant improvement in educational outcomes.

by James A. Hazlett

I might say, to begin with, that the title of my speech was given to me, "Title III in Perspective."

This is the third regional workshop of Title III coordinators, members of State advisory councils, and members of State department staffs. The first was held in Ft. Lauderdale, the second, in Philadelphia a week ago, and this, beginning tonight, is the third. Ray Warner, who has been introduced to you as the ranking officer from the U. S. Office of Education dealing with Title III, asked me if I would give the opening remarks at each of these conferences. I, unfortunately, was not able to go to Ft. Lauderdale and asked Helen Bain, a member of the Council, who is President-elect of the National Education Association, to act in my place. I guess she must have given a rip-roaring political speech--having just won the Presidency-elect of the NEA--and made it a pitch on behalf of getting support for Title III appropriations in the Federal Congress. Anyway, when I went into the Sheraton Hotel in Philadelphia a week ago, someone said, "Gee, I thought we were going to hear that sweet little English teacher from Nashville again." Unfortunately, I accepted the invitation to come here and you won't have the opportunity to hear her, but I do bring greetings to you from the members of the National Advisory Council and want to share with you some of our thoughts concerning the administration and the past and the future of Title III.

The Director of the Education Commission of the States often says that the Commission has a greater image than it really merits, and I suppose it sounds important to have a member of a national advisory council, presumably appointed by the President and overlooking the administration of a certain act, to come and talk about it.

I would like to take just a minute to share with you the trials and tribulations of the National Advisory Council, if I might. It would deflate our image considerably, I'm sure. First of all, I would like to indicate who the members of the Council are: Mrs. Rosita Cota, a classroom teacher from Tucson, who, incidentally, is on a maternity leave from both a teaching position and the Council and who would like to have been here tonight. I know she sends greetings. She has been very much interested in Title III and an enthusiastic member of the Council. Helen Bain, I have already mentioned, another very enthusiastic person on behalf of innovation in education; the Honorable William Sanders, the State Commissioner of Education in Connecticut, a farsighted State official, has often declared that Title III has made a tremendous impact on education in the State of Connecticut. Then we have Mayor J. C. "Pepe" Martin of Laredo, Texas, a layman who has come to most of our meetings; Mr. A. Louis Read, of WDSU, the NBC television station in New Orleans--Mr. Read has been quite interested in Title III; Mario Fantini, a Program Officer for the Ford Foundation, the man oftentimes behind the news on Ocean Hill, Brownsville, those school communities in New York City which have made so many headlines; and Maynard Reynolds, Professor of Special Education at the University of Minnesota, a very thoughtful person, appointed to the Council because of his interest in Special Education, who has made great contributions.

When we were appointed in 1968, there were twelve members on the Council, four for one year, four for two years, and four for three. The people whose terms expired the following January were Herbert Wey, at that time Associate Dean of Education at the University of Miami, Florida; Father Pierre DuMaine, who was the Superintendent of Schools of the Archdiocese of San Francisco; Bill Smith, head of the PACE organization in Cleveland; and Ruth Mancuso, former president of the National School Boards Association. We twelve people assumed our responsibilities as members of this Council, charged by the officials of the U. S. Office of Education, to do all that we could to cultivate within the educational systems of this country a search for creativity and innovation. We pointed out at the time that Title III, being one of the Titles under the Elementary and Secondary Education Act, was peculiarly designed to furnish one hundred percent of the money for the purpose of bringing out innovation in local school systems. We were charged with the responsibility of holding workshops, such as the one we had in Washington in October, over a year ago, bringing together Title III coordinators and Advisory Council members, helping them to see what Title III meant, helping them to design innovative programs, giving them some guidance and counsel on how to evaluate these programs and how to develop means for their dissemination. There was a great spirit of enthusiasm, really, at that time. Secretary Wilbur Cohen and Harold Howe were there and there was a great thrust, I believe, because of hopes of increased funding, which would have really brought money into the grass roots of our public school systems for the purpose of trying to do better the things that we were already doing.

Well, by the end of the first year four members had retired; there have been no re-appointments yet; their vacancies have not been filled. We now constitute a group of eight people. I understand that all of the advisory committees in the Office of Education, some twenty to twenty-five, and most of the advisory committees in the Department of HEW, someone has said two hundred or so, are being evaluated with respect to their roles and their membership. Now, this Council was the product of Congressional statute, was appointed by the President, and had four tasks: (1) to review the administration and general regulations of this Title, (2) to review, evaluate, and transmit to the Congress and the President the reports submitted by the States, (3) to evaluate programs and projects carried out under this Title and to disseminate the results thereof, and, lastly, to make recommendations for the improvement of this Title and its administration and operation.

We were provided a budget out of the S and E funds of the U. S. Office of Education, with which we were to hire an executive secretary and whatever staff was needed to carry out the mandates of this charge. We did hire Dr. Richard I. Miller, who was at the University of Kentucky, directing their Center for Educational Change and who has made quite a study of Title III projects during the life of this Title. The money, though, in the U. S. Office of Education is restricted, like that in other agencies, and we have not been able to find the sums of money to do the kinds of things that we thought we originally would do--making visitations to local projects, hiring consultants to assist in the evaluation of projects, identifying those things which seem most promising, and then disseminating information about them to not only the Congress for its annual report but to the country, at large. We have not been able to do these kinds of things. And, because of our Council's depletion in rank and because of the rather gloomy financial picture that is true of Washington today, I suspect that some of the things I will say tonight may not prove to be too inspiring or too stimulating. I think, nevertheless, we must face the situation very frankly. Even if Title III loses its original thrust, even if it is not financed up to the levels first authorized (and certainly that's not going to be possible), and even if it tends to lose some of its uniqueness, I think the past history of this Title has produced some by-products--some things which the U. S. Office and the States have had experience with--which, if they can be infused into your own respective plans, in your own States, will surely demonstrate that Title III has been a valuable contribution to American education.

Now these people whom I have named on the Council, for the most part, are not intimately connected with education. Some of them are laymen, like "Pepe" Martin of Laredo and Mr. Read of New Orleans, and all of us have had to rely for our two reports on material and information and analyses of Ray Warner and his people in Washington and of our own staff at the University of Kentucky. So we, as a group, are really only able to make certain general observations about the operation of Title III.

Before I list these particular observations, I'd like to take just a minute, since the subject of my talk is "Title III in Perspective," to remind you that Title III was but one part of a larger package, the Elementary and Secondary Education Act. This act was designed previous to 1965 and finally funded in that year on the premise that the so-called establishment of the public school system--the superintendents of schools, like me in Kansas City, and the State commissioners of education (of which you cannot be guilty, Dr. Shofstall, since you at that time were not one)--was really incapable of making the transformation which was necessary in education. At this point, our society was suddenly awakened to some things we as educators already knew: that there were large segments of our population which were really not achieving in terms of their abilities or in terms of the social demands which would be made on them. This awakening came at a time when the Civil Rights question was becoming important and when there was a move to eliminate poverty from our midst. So something had to be done. Those who were taking the leadership in education at the Federal level, somewhat suspicious of the capabilities of the existing school system, declared themselves to be junior partners in education and designed a package which thrust money at the disadvantaged, in Title I, and at innovation, in Title III and IV, and then said to the State departments in Title V, "now here's some more money to build staffs; let's see if you can't do something with it." One ranking official at the time said that if, with the help of these funds, there is no improvement, the junior partner might very well become more of a senior partner. That was the existing mood, I think, four or five years ago.

Then, in 1968, there were some revisions in the Act and these revisions, at least as far as Title III was concerned, turned the responsibility for the administration of this very innovative Title over to State departments of education. In the first year of a two-year period, seventy-five percent of the funds were to be administered by the States; in the second year, all of the funds. There was a shift, then, in the so-called balance of junior and senior partnership; and the suspicions were voiced that the States were not capable, were not able to tool up, and did not have the manpower to provide the same kind of leadership which would develop creativity in new projects. There was also some suspicion that many States would use this money as a kind of a general grant and "divvy it out" on some kind of basis. Examination by our staff during this year of transition shows that this has not been true, that the State advisory councils and the Title III coordinators, by and large, have accepted the responsibility of maintaining the focus for the moneys on innovation and on creativity. We have been pleased with the conscientiousness with which Title III coordinators and, by and large, the State advisory councils have assumed their roles. They have analyzed State plans and reports from the States and these will be summarized in the report which will be released on the 20th of January under the title of The Rocky Road to Innovation. We sense to some extent the loss of interest in the U. S. Office of Education with respect to Title III, not meaning Ray Warner and his people at all, but meaning simply the feeling of the total administration towards the focus of this particular title.

When I was a member of the old Office of Education Advisory Committee, under Harold Howe and Nolan Estes, there seemed to be a great interest in using Title III as a transforming agent. That mood is not there now and in part it is quite natural because the responsibility has gone to the States. But one of our recommendations and certainly our hope is that the same mood which enveloped Title III at its inception will continue at State and local levels.

Now, we are in a period, as you all know, of financial crises in so far as the funding of education at the Federal level is concerned. The President has taken a clear stand that there will be no increase in expenditures, that the number one problem which we must face is to cut down on inflation, and one way to do this is not to increase government spending. We recognize the importance of this objective. But when we have been gathering momentum in just two, three, four, five years in developing programs which we think are meaningful, then we must pause and wonder to some extent if our efforts have not been in vain or if there is not some way in which we can keep the momentum rolling.

Now, just some general observations with respect to the Council's feel for Title III. The Council noted that its name is the Council on Supplementary Centers and Services. We feel that perhaps many of the members of Congress and others believe that Title III was established to provide Supplementary Centers and Services only--to give money to school districts which did not have psychological services or libraries or science centers or the like so that the districts might provide these added services. We of the Council, and I think the U. S. Office of Education and those in the profession, have always felt, however, that the real thrust was not to create supplementary centers and services--which should be provided out of State and local funds--but to use Title III for the designing of programs and projects which are unique and distinctively new, in so far as possible. When, under HR 514, Title II and III of ESEA and, I believe, Titles III and V of NDEA were lumped together, I analyzed that lumping as being a way to pool things and services, like Title II did with library books and Title III NDEA with science equipment. Put things and services together and, if that be the thinking, the whole focus, the whole import of Title III towards fostering distinctively different kinds of programs, has been lost. But you know, and the U. S. Office of Education has continuously advised, that supplementary centers and services is not the real import; and yet I feel that that is a very important consideration in this whole matter. Perhaps we failed in not being aware of it and in not acquainting Congress with it. Naturally, too, we are concerned about the funding level. This year's funding, rather 1969's funding, was slightly below 1968 funding. The President's budget is calling for $116,000,000 compared to $165,000,000 for the year just ended. Because of inflation, just to maintain present levels takes at least an eight percent to ten percent increase. And so we are confronted with this very real situation of restricted amounts of money. Many of your projects, however, are terminating. There may be some new funds by which you can invest in new projects. Of course, the timing of the appropriations has been a problem for a long time and it is worse now than it has ever been, with no appropriations for educational purposes at all. The President, as you know, has indicated that if Congress does not pass the appropriations bill he will reconvene it on the 26th of December. Maybe that will have some effect.

The Council, in addition to stating a belief in the need for increased funding, also concludes that there should be no pooling of Title III with any other Titles, that it should stand alone, that it is unique and different. Now, out of the examinations which we have made of hundreds and hundreds of projects and out of testimony and letters and printed materials we have received, we know that Title III has made an impact on millions of children and thousands of teachers. This is a story that more and more needs to be told and yet our Council was charged only with the dissemination of evaluation of projects. When we got into publication of PACEreport, with which most of you are familiar, we were criticized because we published articles dealing with how to effect change, how to evaluate, and how to carry on dissemination programs--topics that went far beyond the evaluation of specific projects. But we know the impact has been great and that it has made a change in the lives of many people. Out of Title III has come some by-products which, even if Title III should continue to shrink, are the kinds of things I would hope all of us would continue to recognize as being of value. One such by-product was the utilization of lay people in planning and evaluating. The State advisory councils are amenable to that, bringing together men and women outside the profession, from different walks of life, and from minority groups, and giving them a chance to visit projects and to make evaluations.

We are living in an age, as you all know, when community action is a kind of by-word--community action in OEO, community action in Model Cities, local boards of education deciding major problems once entrusted to elected officials. This is a technique by which lay participation can be utilized at the State level. It is something I hope would continue and be used further. Another valuable by-product is the requirement for needs assessment--to take a good, honest look at the educational strengths and deficiencies in any given State, to note that there are variations in needs in different geographic areas, and then to begin to think how programs can be developed to meet these deficiencies and needs. If one reflects upon this long enough, he will begin to see that this analysis is beginning to take us away from the old idea that education is a ready-made product, which is handed to everyone regardless of who he is or where he lives or what his background is, and that it instead leads us to deal directly with specific problems under highly varied conditions.

The emphasis on evaluation--very important--upon the spelling out of objectives in behavioral terms and then upon evaluating these objectives, is another important offshoot of Title III. Now, our Council has had some differences of opinion as to whether you can really spell out all these objectives in behavioral terms, but, at least, this is certainly a step in the right direction. We have gotten down in the last year or two, when we consider innovation and change, to the idea that change for change's sake is no good. Many of you probably said you never thought that anyway, but I have heard distinguised professors of education stand on public platforms and say that change for change's sake is important--it doesn't make any difference about substance, if you can modify the traditional ways of doing things it gives invigoration to the people who are involved. It focuses their energies; it creates a Hawthorne effect; it's good--just change, itself. But now we have heard, in the last year or two, more and more about change for which you have to account. Accountability is becoming one of the popular educational concepts of the day and one which I think we really need to bear in mind.

Well, it's the Council's wish, and hopefully it's your wish that Title III will maintain itself as an independent educational program, adequately funded and free from being a part of any other program. Whatever influence at this late date anyone of you has in influencing the Senate Appropriations Committee, or any other groups which have the power to fund, should be exerted. We must continue to push for increased funding and for the focus of effort and money upon continuous innovation at the local school level. Yet, if there is a re-examination of the evolving patchwork of Federal aid (and when you look at the history of Federal aid to education, it is a kind of crazy quilt), and if we can ever get a comprehensive definition of what Federal support should be, we can always remember that Title III stood as a symbol--a symbol that there must always be responsible innovation to keep pace with changing times and changing needs. In addition, you, in your particular roles, can infuse into all your activities the things that Title III stood for--needs assessment, lay participation, cooperative endeavor, rigid evaluation. If this can be done through the experiences we have had with Title III, even if it is not funded where we would like it to be, it will have made a real contribution, I think, to American education.

by Leon Lessinger

The American education system today is experiencing the most sustained, diverse, widespread, and persistent challenge ever to confront it. Virtually everyone agrees that something has gone wrong, that corrective action is needed. Congress and State legislatures have responded to this crisis of public concern by providing additional funds, but are increasingly dismayed that puzzling educational problems persist.

In principle, the American educational commitment has been that every child should have an adequate education. This commitment has been stated in terms of resources such as teachers, books, space, and equipment. When a child has failed to learn, school personnel have assigned him a label--"slow," or "unmotivated," or "retarded." Our schools must assume a revised commitment--that every child shall learn. Such a commitment includes the willingness to change a system which does not work, and find one which does; to seek causes of failure in the system and its personnel instead of focusing solely on students; in short, to hold the school accountable for results in terms of student learning rather than solely in the use of resources.

If schools are to be accountable for results, a new approach to the basic mission of the schools is necessary. In the first place the focus must shift from teaching to learning. Second, the schools will cease to merit credit solely for their ability to screen and sort in a rutted roadbed toward college or the discard pile. Third, a technology of instruction based on specific learning objectives will start to build. Finally, a rational relationship may be established between costs and benefits.

Often in science and in other spheres of thought it is not possible to confront an important idea directly. For example, the phenomenon of electricity is understood by its effects--flow, resistence, pressure. It may be helpful to approach accountability in a similar indirect manner. The ideas of audit, performance contracts, developmental capital, and educational escrow accounts constitute the rather basic, primitive attributes of the concept of accountability for learning results.

I. Performance Contracts To Achieve Accountability in Education

An experimental dropout prevention program illustrates an approach to achieving accountability through performance contracts with private enterprise. A description of this project and some generalizations about its possible implications can illustrate the use of performance contracts to achieve accountability in education with components other than or including private enterprise.

The Texarkana, Arkansas, School District was granted funds to conduct a dropout prevention program under Title VIII of the Elementary and Secondary Education Act. An "actor's agent" was employed in the form of outside technical assistance from a nonprofit firm to help them translate their compensatory training objectives, e.g., reading, arithmetic, study skills for disadvantaged students in six junior and senior high schools, into performance criteria for competitive bid by private contractors. The firm also helped them to develop the Request for Performance (the document against which the bidding took place), to oversee the bidding process, to develop the actual performance contract with the successful bidder, to communicate with school staff and community, and a host of related activities. Dorsett, Inc. subsequently was awarded a performance contract built around the following provisions:

1. Students who are two or more grade levels below standard in basic skills and whose family income is $2,000 per year or less are to receive a training program for up to three hours per day in a portion of the school plant. The students remain in the total school program to receive other school benefits.

2. The contractor agrees to be paid only on the basis of a stipulated amount of money for each student who successfully completes the training program.

3. A penalty is assessed for those students who do not achieve specified performance levels.

4. Six months after the termination of the project, school officials have a right to re-assess student performance. If it is less than the specified level achieved, a penalty may be assessed.

5. The school system, not the contractor, selects the students.

6. The training program of the successful bidder must be cost-effective and not labor intensive.

7. The contractor agrees to train school personnel so that the school system can carry on successful practice after the project is terminated.

The assumption behind the Texarkana program is that a private contractor in concert with regular school personnel in the overall school setting, performing both an institution building and a direct instruction service, will have greater freedom to innovate and may be more successful in motivating students than the regular school system has been.

Performance contracts are not new to education. But the concept of holding an educational agency accountable for results is. When a student is able to demonstrate in concrete terms what he has or has not learned, educators will be in a better position to judge where and why a program succeeds or fails and make the necessary changes to achieve success.

In the main, educators have failed to develop performance criteria for measuring the effectiveness of instructional programs, and many programs are now underway which at no point describe what students are expected to gain from their educational experiences.

Instead of vague promises to provide students with "an opportunity to learn to communicate effectively," instructional program objectives should be stated in terms as specific as these in the following example:

> Given three days and the resources of the library, the student completing this program will be able to write a 300- to 500-word set of specifications for constructing a model airplane that another student could follow and build.

There are and should be larger objectives in education that are difficult to define and impossible to measure as the consequence of any given program. The training components of education, illustrated in the basic skills of reading, arithmetic, and the like are most amenable to performance contracts.

But the fact that many results of education are subjective and not subject to audit should not deter us from dealing precisely with those aspects of education that lend themselves to precise definition and assessment. Rather, it demands that we do make maximum use of these individual parts that tell us what the change in the whole has been.

II. Independent Accomplishment Audit

Independent fiscal reports have been applied to the fiscal side of education for many years with great success. The independent fiscal audit not only has resulted in the virtual abolition of shady financial practice, but the professional recording, classifying, and interpretation of the economic facts of the enterprise have been done in a manner designed to produce data which encourages and permits effective management.

The Independent Accomplishment Audit (IAA) relies upon outside judgment of results or accomplishments. It has six essential parts: the pre-audit; the translation of local goals into demonstrable data; the adoption/creation of instrumentation and methodology; the establishment of a review calendar; the assessment process; and the public report.

Each word in the expression "independent accomplishment audit" was chosen to express the concept. A close look at each of the elements may be a useful way to display its meaning.

Independent:

The community served by a school usually has little choice in the information and reports given it by the teachers, administrators, and board of trustees.

A distinctive characteristic of the IAA is the concept of a third party review to assess the "truth" as seen by the independent reviewers without sentimental, defensive, protectionist, or financial influence. Outside objectivity can nurture respect for the report as an honest accounting of what has happened to children's attitudes, skills, and the level of knowledge in relation to locally established objectives and goals.

Accomplishment:

Results are the products, services, or other effects created by the school. Results achieved stand in contrast to resources consumed by the school. Every organization has, or at least is intended to have, outputs even though they may not be readily measurable or even clearly definable. In other words, every organization does something and that something is its output. Employee development, satisfaction, and morale are relevant outputs as are taxpayer satisfaction and support, but student learning is the primary concern--the raison d'etre of education. Student accomplishment is the prime output to be judged by the IAA.

Judgments can be made on the basis of interviews, observations, and instruments such as tests or video-tapes. Through the use of small-sample statistical techniques, judgments of small numbers of students can indicate the performance of the entire student body served. The range of judgments can be specified in a classification ranging from crude to rather exact. This full range of assessment can be utilized in the IAA.

Audit:

An audit is a standard review conducted by someone who is qualified and trusted to make objective reports. It is anticipated that auditors will come from the ranks of professional educators, the laity, universities, and private enterprise. Training will be essential.

The following description of the IAA process itself should further an understanding of its relevance as a stimulus of accountability.

1. The auditor selected by the school system starts the IAA process by discussing with the staff (students and community can be involved at this stage) the objectives and plans of the particular program to be reviewed.

2. In concert with local people, the auditor determines a clear formulation of the evidence that will be used by the local people to indicate that the objectives have been met and the conditions that will be used to elicit the evidence.

3. The auditor determines the instruments, such as tests, questionnaires, standardized interview, and the like which will be developed or secured to gather the evidence agreed upon.

4. An agreement is secured in writing which indicates the nature of the reviews, where they will be held, how long they will take, when they will occur, and who is responsible for arrangements, the nature of the arrangements, and other logistical considerations.

5. The auditor carries out the procedures agreed upon as codified in the review calendar.

6. The auditor files a report at an open meeting giving commendations and recommendations as they relate to the local objectives. The report is designed to indicate in specific terms both accomplishments and ways the program may be made more effective and/or efficient.

The IAA is a new technique designed to put local school personnel and the clients they serve in a problem-solving mode of thinking. It is built around a financial core since money is a common denominator for the heterogeneous elements of inputs but its focus is upon student attitudes, skills, and knowledge. Out of the IAA a whole range of useful by-products may be anticipated. First, it may lead to a knowledge of optimum relationships between outputs and inputs, i.e., those that are cost-effective or otherwise to be values.

Second, it can form a basis for the discovery and improvement of good practice in education.

Finally, it can renew credibility in the educational process, effect more responsiveness as to the needs of children, and supply the understanding necessary to produce change.

III. Developmental Capital and Accountability

Money available in a predictable and secure manner for responsible investment to produce results is the energy of accountability. Developmental capital is the money set aside for investment by school personnel in activities which produce the results described in the IAA. Business typically budgets amounts varying from three to fifteen percent for research and development designed to produce better products, better service, more sales, or more capability to produce these items. Until the passage of the Vocational Education Act of 1963 and the Elementary and Secondary Education Act of 1965 there was virtually no money earmarked for this general purpose in education. With the passage of these Acts, there is now approximately one-third of one percent available for this type of investment. Perhaps the best known of these programs involving "risk" capital is the highly successful Title III program of innovative and exemplary projects.

The basic purpose of developmental capital is to provide a financial resource to stimulate and sustain re-examination and modernization of the educational system. The investment of "risk" capital can generate new educational traditions by applying the developmental aspects of business success to the public sector.

School systems too often are characterized by archaic budgeting systems; poor use of buildings, staff, and equipment; low salaries, unrelated to performance; inadequate personnel development; poorly developed promotion systems for teachers; outmoded organization; inadequate equipment and materials; primitive technology; and repetitious and uninspired instruction.

Effecting necessary change requires discretionary funds which are not now available to local school leaders. In the absence of an infusion of new monies for development, dissemination, and installation of new products and practices, the gap between demand for higher quality education and performance is likely to widen further. Title III ESEA has been and is a dynamic and vital source of such changes--albeit on entirely too small a basis.

With development capital set-asides, renewal can be directed through Federal, State, and local channels, and activity can be aimed at improving management leadership capabilities. All three sectors of Government can work in conjunction with one another and with the private sector. At each level a particular focus can be attempted. For instance, Title III ESEA funds at the Federal level can be applied to "high risk" investments and identification of successful practices around the nation. State educational leaders need capital to increase the effectiveness of their State departments of education and to furnish incentives to reward performance on State priorities.

There are many ways in which developmental capital, such as Title III, might be used at the local level. One possibility, called producer-consumer school district contract development, involves the sharing of good, locally developed educational practices. Pieces and parts of exemplary models exist throughout the nation. But missing is an effective way to insure adoption, diffusion, and dissemination. Title III would target directly on these sorts of problems and, in addition, the producer-consumer contract development program would provide money for local investments to study, plan, train personnel, and install good practice which the local people want to obtain.

An example of the use of developmental capital in a local school district may serve to illustrate the concept and its relationship to accountability for results. The superintendent of a large California school district was allowed to manage approximately one percent of the operating budget of the school district, some $250,000, as an investment account. Board policy also permitted the set-aside of one percent of all funds raised from Federal, State, and private sources. For the period 1965-68, with the assistance of an elected teachers' group called the Academy of Instruction and the cooperation of students, administrators, community members, and the board of education, this set-aside account was used to invest in competitive teacher/student/administrator proposals tied to demonstrable objectives.

These innovative and exemplary activities have brought beneficial changes in student accomplishment, teacher morale and effectiveness, and administrator behavior. Such things as a Know and Care Educational Resources Center, a Zero Reject Reading Laboratory, a Physical Fitness Testing Center, a Humanities Center, and incorporation of vocational programs into the fundamental reorganization of an entire school are a few of the results. The one percent set-aside was used as a "rudder" to cause change affecting the entire budget.

IV. An Escrow Account in Education

Accountability may be enhanced in public education by the introduction of competition from either inside or outside a school system. This competition might be the product of fiscal incentives and a utilization of the market mechanism. For example, one way to obtain competition in compensatory training for disadvantaged students would be the creation of an escrow account. From this account, designated parents in the poverty category could obtain a voucher for use in accredited schools or private agencies according to performance stipulations. A plan is outlined below.

1. A school system, receiving Title I dollars, sets aside an amount in an escrow fund. Vouchers, equaling the amount of the escrow fund--the value of which is determined by the child's need for compensatory education--are distributed to parents of a selected number of children.

2. Parents of the selected children choose the educational agency to which they want to send their child for a portion of the day for compensatory training on a guaranteed performance basis.

3. The school systems and other alternative education service suppliers negotiate individual contracts with the parents, guaranteeing a specific level of achievement required for payment to the voucher.

4. Through this negotiation, the parents and the schools obtain

incentive leverage to give the children the truest and surest form of compensatory education.

Such a program might have several major effects:

1. It can create a true educational market mechanism in which all interested suppliers of educational services compete to please the consumer. Suppliers may be:

   a. Public school systems and individual schools within the system.

   b. Private schools.

   c. Private corporations.

2. It can increase parent and community participation in educational matters.

3. It will foster accountability. Whatever the contract is--to raise the goals of the student, or to raise his reading level--the supplier will be held accountable for the success of his services.

4. It will increase the overall quality of instruction because the consumer will pick the better schools through the spur of competition.

5. It will make education relevant to the desires of the parent and the needs of the child. Lack of relevance is one of the major criticisms of education today.

Conclusion

Discontent with the schools as they are is widespread. Much of this discontent arises because so many of the students in the central city schools fall two or more years behind the national average in reading and arithmetic; much of the discontent arises because so many children dislike school and drop out; much of the discontent arises because many students and educators find the schools rigid, and more concerned (some of the schools say necessarily concerned) with discipline than with education. Our task then is, first, to utilize what we know and what we have learned through the use of these minuscule risk funds available during the past few years and to focus increased discretionary funds on these "Winters of Discontent." Title III is a proven vehicle.

Our task then should be obvious.

by B. Alden Lillywhite

It's a pleasure for me to be here to talk to those who are responsible for establishing policies in ESEA Title III programs as well as those who administer them. Policymakers, I find, have a different perspective on matters affecting the schools than do administrators--and I find the difference very interesting and informative.

Despite these differences in perspective, I believe both the policymakers and administrators would agree that the American education enterprise is in great trouble. I believe they recognize the present turmoil in education and they may even agree that much of the educational establishment is presently held in low public esteem, if not outright ill repute.

There are a substantial number of informed people today who think that for all practical purposes the educational enterprise has made little progress in the past fifty years. Some would say, with considerable justification, that the state of the art in many local educational agencies resembles a 17th century cottage industry, with little likelihood of any significant change in the near future. I do not know how many of you share this dreary view. It certainly is obvious, however, that education has failed for a substantial portion of the children it is supposed to serve.

Many people wonder why this is so. They wonder because, in spite of the poor public image, many promising and productive things are emerging today in our educational practices. I won't enumerate them because they are well-known to most of you. Yet, a feeling of failure pervades much of the public discussion about education and, I think, justifiably so. Some people even wonder whether public education can make the adjustments necessary for the required results or whether some other more responsive organizational arrangement will have to be developed.

As I worked over this speech last night I wondered why we have come to our present state of discontent with public education; I decided that we should look back for a moment at what has been happening, to see if we could find some answers to these puzzling questions and some suggestions for future action. Some of you here may disagree with concepts presented in this speech; if so, we should have a livelier discussion. My principal purpose is to stimulate thinking and discussion which, I hope, will lead to appropriate future action, and to indicate the role of Title III in this change process.

Fifty years ago, even twenty-five years ago, people could get along reasonably well regardless of the kind or quality of the educational program they were receiving. If a youngster was failing in school, he could drop out and still get some kind of job. Education--particularly higher education, but including secondary, as well--was still a frill, frosting on the cake. And although it was pleasant to be able to quote Shakespeare, to manipulate the binomial theorem, and to say "All Gaul is divided into three parts" in Latin, as long as you could read, write, and figure, you could make a living. Employment requirements began inching up after World War I, but any deficiencies in the schools that might otherwise have been revealed through the inability of uneducated Americans to get or hold jobs were hidden first by the depression behind a breakdown in our economy and then by World War II in a need for manpower of every description, regardless of its quality.

The result was that public education had mostly satisfied customers and the dissatisfied tended to leave without complaining. The children of the affluent sought educational improvement in private schools and children of the poor ignored educational failure by seeking employment. Like some public utilities, public education had a captive market; it was a benign monopoly, and--again like public utilities--its occasional critics were dismissed as cranks.

But now things are different. Requirements of the past do not meet present day needs and education is in the midst of change. It has been forced out of its protected environment by such major social issues as:

-- more demanding job requirements stemming from the increased intellectual and technological complexity of modern employment;

-- a new militance among ethnic minorities proceeding from the tension between extraordinary affluence among some Americans and continuing poverty for others;

-- a new perception of social injustice arising from a communications explosion which, through television, brought the squalor of Harlem into the living rooms of Scarsdale and the comfort of the suburbs to the tenements of the ghetto.

Indeed, it seems we are living in a time when the most stable thing in our society is change. As the Angel Gabriel of Green Pastures described it, "Everything nailed down is coming loose." The changes taking place are abrasive. To those who want to stand fast on "the way it's 'spozed to be" they are frightening. They threaten the security of those who view education as the sole province of the professional educator acting with the concurrence of a policy-setting board. The changes are confusing and often misinterpreted by those who know that change is essential to achieve desired goals but do not know exactly what it should be.

One of the effects of social change, as we have seen in the field of civil rights, is that it generates hope and even greater concern for more progress.

We all are able to recognize that there is considerable questioning and resentment on the part of many of today's parents as they watch their children fail to obtain the education necessary in an increasingly complex society. The parents of those leaving school, those marked failures, and the in-school "dropouts" say with some justification, "My kid is not dumb. Why can't you teach him to read or do math?"

Small wonder that news of computer technology and outdoor classrooms fails to impress communities where

- as many as seventy percent of the students drop out before graduation,

- many read at levels three or more years behind national norms,
- few can compose an essay in acceptable English, and
- few can perform simple arithmetic operations accurately.

These are among the very problems that Title III was designed to solve.

In principle, the American educational commitment has been that every child should have an adequate education. This commitment has been stated in terms of resources such as teachers, books, space, and equipment. When a child has failed to learn, school personnel have labeled him "slow," or "unmotivated," or "retarded."

Our schools must assume a revised commitment: that every child shall learn. Such a commitment includes the willingness to change a system which does not work and find one which does, to seek causes of failure in the system and its personnel instead of focusing solely on students, a willingness, in short, to hold the schools accountable in terms of student learning, rather than in terms of the use of resources.

Title III has brought change, but it is clear that there will have to be many more changes--in attitudes, methods, processes, and goals--before our schools can fully meet the demands placed on them today.

Our public elementary and secondary schools enroll 44 million students, employ 1.9 million teachers, and account for the expenditure of $30 billion in tax funds annually. We have all kinds of statistics on where the money goes. We can pin down per capita expenditures in any school district in the country, state how much any of them are spending for construction and service on the debt, and enumerate pupil-teacher ratios until the sun goes down.

All this seems to add up to learning more and more about less and less that is really relevant to the education of our children.

But we have virtually no measurement of the results that our enterprise yields. We do not know, for example, what it costs on the average to increase a youngster's reading ability by one year; all we know is what it costs to keep him seated for one year. All the indices we have measure our skill as financial managers; not a single one evaluates our effectiveness as educational managers. It would make much more sense if--as one expert has proposed--we moved from a "per pupil cost" to a "learning-unit cost," to focusing on the level of learning, not the maintenance of children in school. The definition of effective teaching may well be measured in terms of how well the students learn.

There have been a few moves to measure the results, however, and ample proof of failures has come out despite the schools' reticence. Today, about one of every four American children drops out of school somewhere between fifth grade and high school graduation. The Army Surgeon General reports that, in 1965, one of every four eighteen-year-old males failed the mental test for induction into the service. And hundreds of thousands of parents, particularly of minority children, reacting to this information, contend that their children are not stupid--but that perhaps some educators are incompetent, or the methods they use are inadequate.

Why did these proofs of failure have to come from outside the schools rather than from within? Why haven't we been alert to the symptoms of failure, so that we could learn to cure it? If one airplane in every four crashed, as passengers we would be in a lynching mood. If one automobile in every four went out of control and produced a fatal accident, Detroit would be closed down tomorrow. Yet our schools--which are much more important than airplanes or automobiles--are somehow failing one youngster in four and we have not acted effectively to arrest the social and economic fatalities which every school dropout represents. It is no wonder, then, that critics, such as Paul Goodman and Edgar Friedenberg, feel that many dropouts are better off on the street than in the classroom. And it is no wonder that some parents--I think of those who took over I.S. 201 in Harlem, for example--feel that rank amateurs can do no worse job of running a school than the self-styled pros. In refusing to give our clients proof of performance, while they gathered their own proof of our flops, we have set the stage for the raucous and bitter confrontation with power-blocs common to the American educational scene today. Moreover, we have dissipated that confidence which the public once reposed in its educators, and we have almost completely eroded our own claim to professionalism.

If we are to assert that professionalism, if we are to meet the demands for change, we must join accountability to public education. And by "accountability" I mean much more than such simple indices as numbers of dropouts and the results of reading tests. I mean the factors which produce specific educational results with different groups of children, through investment of specific amounts of financial resources.

What is implied here, obviously, is a much more sophisticated kind of accountability than ninety-nine percent of us have been accustomed to. We have been traditionally concerned with quantitative input, with the amount of financial and human resources that have gone into buildings, into teacher salaries, into textbooks, and so forth. Listing expenditures by such categories is a legitimate way of showing the public where its money has gone.

But it has nothing to do with showing the public the results of its investment in education. It is not a legitimate way of demonstrating qualitative output, or what I call "accountability for results." The distinction is easy to make as soon as we ask what results the public wants for its investment.

Does the public want, as a result of having spent X millions of dollars, the service of Y number of teachers? Does it want to own a given number of textbooks, of test tubes and analytical balances, of trombones, and world globes?

Obviously not. What it wants from its investment is educated children, able to meet their own needs and society's needs to the full measure of their potential.

One problem is that we educators tend to state our purposes in vague terms. "To create responsible citizens" is one of our noble objectives. "To develop an appreciation for good literature or the excitement of science and mathematics" is a further example. Such generalized, global objectives are grand and beautiful--and totally useless to the teacher charged with fulfilling them.

What the teacher needs is something a little less grand and considerably more specific. She needs something such as:

> "Each child who completes this course of study should be able to read two hundred words per minute with ninety percent comprehension."
>
> Or, "Each child who takes one month of this physical training should be able to demonstrate the proper form for three individual sports activities: archery, pole vaulting, and the standing broad jump."

These statements are precise in terms of the learning results to be achieved. Any teacher, parent, or student can understand them.

They don't tell us how the stated objectives can be achieved, but they tell us specifically where we are going.

In the dropout prevention program, the bilingual education program, and in other demonstration activities administered by the Bureau of Elementary and Secondary Education, a number of approaches are being tried in an effort to test the notion that knowing where we are going will improve our chances of getting there.

These efforts to account for school actions in terms of student learning are what I mean by "accountability." The schools normally account for their actions in terms of the purchase of various resources and school needs.

One approach being tested along these lines is the "performance contract." On this approach, anticipated student learning is stated in advance and incentives are offered to those able to produce greater results than specified.

The dropout prevention program in Texarkana, Arkansas, illustrates an approach to achieving accountability through performance contracts with private enterprise. The local school district translated its training objectives in reading, arithmetic, and study skills for disadvantaged students into specific performance objectives. Assistance from a nonprofit firm was sought to oversee the competitive bidding process and to provide other technical services associated with preparing and obtaining a performance contract with a qualified commercial firm.

The contractor will be paid according to the number of students who successfully complete the training program. He will be penalized for the number of students who do not achieve specified levels of performance. The school, not the contractor, selected the students.

Performance contracts are not new to education. Elements of the notion were present in a variety of experiments during the 1920's and even before. But the concept of holding an educational agency accountable for results has not, to my knowledge, been put into practice before.

This approach, if applied to the allocation of Federal resources and indeed all educational resources, would surely prove more economical than our present practices. Educational objectives translated into measurable student learning would offer a means for assessing program cost based on program effectiveness. When educational resources are directed toward achieving specific, measurable outcomes, we may then be able to determine what resources are required to bring a given student to a given level of performance.

The "independent educational audit" is another device being tested. Such an audit is directed simultaneously to determining if specified objectives have been met and to suggesting instructional procedures which might be more effective in meeting the objective.

Independent fiscal reports have been applied to the fiscal side of education for many years. The "independent educational audit" is a process similar to that used in a fiscal audit. The emphasis, however, is on learning, on student performance as a result of financial outlays. One of its distinctive characteristics is a third-party review to assess the "truth" as seen by the independent reviewer without defensive, protectionist, or financial influence. The auditor attempts to make an objective accounting of what has happened to children's attitudes, skills, or knowledge in relation to locally established objectives and goals. Independent review is of fundamental importance in both business and government; its inclusion in the area of instruction is clearly in the best interest of education. The audit report would not only determine accomplishments but would also recommend procedures for getting results not attained. Auditors would come from the ranks of professional educators, from among laymen, from universities, and private enterprise. Training is essential; in fact, we have already conducted one training institute to develop the concept.

As you will recall, the Title III program was originally conceived as a way to provide risk money or developmental capital for implementing educational change in American education, particularly at the local level. I believe it is essential for this opportunity to be continued; educational accountability depends upon the availability of money for responsible investment in practices likely to produce improved results.

Business typically budgets from three to fifteen percent of its funds for research and development, designed to produce better products, better services, more sales, or greater capability to produce these items. Until the passage of the Vocational Education Act of 1963 and the Elementary and Secondary Education Act of 1965, there was virtually no money earmarked for this general purpose in education. With the passage of these acts, approximately one-third of one percent of our educational resources became available for this type of investment.

With developmental capital set-asides, renewal can be directed through Federal, State, and local channels, and activity can be aimed at improving management leadership capabilities. The three sectors of government can work in conjunction with each other and with the private sector.

At the Federal level, funds can be applied to "risk" investments. This is the only governmental level which can commit the required dollars and manpower to accomplish research and development. Another major capability of the Federal level of government is identification of successful practices around the nation. Renewal capital can be used to determine the most pressing management and operational needs of school administrators and to identify successful school management and classroom practices that may meet these needs. A nationwide search should be organized to identify educational approaches which are effective and schools which have resolved major administrative and instructional problems.

At the State level, developmental capital can be used to furnish incentives toward achieving State priorities. Such an incentive payment program can help States meet their predetermined needs by concentrating funds on specifically identified and selected activities.

At the local level, developmental capital might be used to secure a producer-consumer contract to share good educational practice. Pieces and parts of exemplary models exist throughout the nation. But we still lack an effective way on any major scale to insure diffusion, dissemination, adaption, and adoption. The producer-consumer contract development program would provide money for local districts to study, plan, train personnel, and install good practice which local communities want to obtain.

Here's how it might work:

After a local school district had completed a successful self-analysis, it would study model programs or practices in operation in other districts and select one which would be most likely to meet its priorities. The "producer" school district would be the district with the successful model program; the "consumer" district, the one seeking the solution.

The Federal government would provide each State department of education with a complete, cataloged file of successful programs across the country. The State departments, having been involved in both the analysis and identification procedures at the local level, would identify producer school districts which had the potential of satisfying the needs of the consumer district and would help the consumer district decide which producer districts it wished to inspect.

During the renewal process, the consumer district might be responsible for fulfilling two primary obligations:

1. paying the producer school district a sum for each day of on-site examination. These funds might come from the consumer school district's renewal capital account and serve as incentive rewards for producer schools to continue good educational practices.

2. conducting a simple evaulation for the other levels of government during each on-site examination. This procedure can serve as a check-and-balance system to keep the "good practice" inventory up-to-date and valid.

The culmination of the renewal process comes with the development of a performance contract between the consumer district and the selected producer district to reproduce the desired practice.

Since seventy-five to ninety percent of local school system budgets are tied to salary, some mechanism for stimulating flexibility, creativity, and accountability is needed. Developmental capital has that potential.

Finally, accountability may be enhanced in public education by the introduction of competition from either inside or outside a school system. This competition might be the product of fiscal incentives and a utilization of market mechanisms. For example, one way to obtain competition in compensatory training for disadvantaged students would be the creation of an escrow account. From this account, designated parents in the poverty category could obtain a voucher for use in accredited schools, according to performance stipulations. Let me describe a possible plan:

A school system which receives Title I dollars might set aside an amount in an escrow fund. Vouchers totaling the amount of the escrow fund might be distributed to parents of a selected number of children. The value of each voucher would be determined by a specific child's need for compensatory education.

Parents of the selected children might choose the educational agency to which they wanted to send their child for a portion of the day for compensatory training on a guaranteed performance basis.

School systems or other suppliers of education services might negotiate individual contracts with parents, guaranteeing a specific level of achievement as requirement for payment.

Through this negotiation, the parents and the schools would obtain incentive leverage to give the children the truest and surest form of compensatory education.

These are among the ideas that we have been working on at the U. S. Office of Education as ways of encouraging educational accountability. I look forward to discussing them with you in greater detail in the workshop periods which follow. If we are to fulfill the promise of ESEA Title III and make high quality education a reality for all American children, a move toward accountability may be our next most important step.

by Thomas D. Clemens

Perhaps it goes without saying that our concern today is with bringing about change which is relevant to valid educational and social goals and not with change just for the sake of doing things differently. It may also go without saying that there is a considerable amount of activity in educational settings today which does not contribute to better learning for children or to more effective or efficient operations of schools. This presentation, however, is based on the assumption that State education agencies are primarily concerned with quality education and, accordingly, any changes in schools will evolve from that primary concern. Having said that, let me now turn to some comments on how such changes can be facilitated.

It is quite popular to assert that we know too little about how to bring about educational change and, no doubt, there is the same kind of continuing need for new knowledge about change processes as there is in any other area of human inquiry and endeavor. Still, it is important to point out that there is a substantial and rapidly growing body of knowledge about dissemination and utilization in all fields--some 4,000 separate reports[1/]--and that a good part of this literature deals directly with educational change. Really lacking are concerted efforts to 'engineer' this knowledge into techniques, procedures, and guidelines for action. In a very real sense, the work of State agency personnel in general and dissemination personnel in particular is to engage in such engineering.

In this presentation I will deal with four main points:

I. The underlying assumptions of this discussion. (If you are to weigh my comments and determine their relevance to you, it seems important that you know what underlies these remarks.)

II. What we know about change processes. (Although this portion of the presentation will focus upon change in educational settings, relevant information about knowledge utilization in other fields will be drawn upon, as appropriate.)

III. The resources of State education agencies as facilitators of educational change (and you are better qualified to discuss this than I am).

IV. And, lastly, possible directions of action by State education agencies in fostering goal-related changes in schools.

Let us now deal with these four points.

I. Underlying Assumptions

The first assumption upon which I am operating is that we see a good deal more educational change these days than we do education improvement. If we compare how our schools operate today with the way they did just a few years ago, it is evident that some kind of educational change is occurring; but if we are asked if children are learning more, or if our schools are responding adequately to the demands society places upon the schools, we are somewhat harder pressed.

Secondly, it is assumed that our goal--yours in the State education agency and ours in the Federal government--is increased rationality in the decisions of local education agencies in adopting innovations which will improve attainment of educational goals. This may suggest the need for us to behave differently than simply to attempt to convince local schools that they should buy a product line which we endorse.

Third, it is assumed that the State education agency is an essential agent for educational change in American education and is potentially the most powerful single change agency.

The fourth assumption is that in education, as in all other areas, continued effective utilization of knowledge for improvement requires deliberate efforts at linking practice or client groups to distant, more expert resources. This assumption dictates improved cooperative efforts by State and Federal agencies to diffuse and install appropriate innovations among and within local educational agencies--efforts based on clearly differentiated State and Federal roles, to reduce duplication and minimize possible gaps in needed functions and services.

Fifth, it is assumed that the ultimate criterion of effective change is the maintenance and continued support of educational innovations adopted by a local school district. Put more crassly, the test is whether or not the adopter "puts his money where his mouth is."

Finally, it is assumed that a continuing program for innovation and improvement in education requires something other than just more money.

II. What We Know About Change Processes

One recent study of change in public school districts[2/] indicates that there are three essential conditions for the adoption and continuation of what had been an innovation. In the words of the investigators, these essential conditions are:

. initiating mechanisms, that is the continuing flow of new knowledge into the school district from outside sources. This new knowledge may flow through print or other mass media, through training programs, through professional meetings, or through interpersonal communication with persons outside the school district.

. sustaining mechanisms, or the capability of the school district to respond to and act upon such new knowledge. These mechanisms are within the school district, itself, and are relatively impervious to manipulation by outsiders. One of the most powerful internal conditions influencing the ability of the school district to change is the degree of commitment and support for high quality educational programs within the community. Another very powerful factor is the degree to which the school district demonstrates 'openness,' or willingness to perceive problems and to make use of information from outside sources. A third powerful influence is the degree to which there is open communication by administrators and teachers about task-related matters. Yet another powerful predictor of innovativeness within the school district is the degree of flexibility there is in the school budget. Granted, a well-financed school is more likely to be innovative than one which is poorly financed, but a well-financed school with a "locked-up" budget is usually less innovative than a poorer school district capable of re-allocating resources as needed during the trial of new practices.[3]

. performance feedback transmissions, the clarity and measurability of objectives of the school district and the amount and clarity of communication about the degree of goal-attainment within the schools. Clearly related to this, of course, are similar communications about the effect of any trial innovation on goal attainment.

From this conceptualization, it is evident that an 'outside agency,' such as a State department of education or the U. S. Office of Education, can play a highly significant role in communicating new information to school districts, regardless of any other conditions for change. For that reason, let us explore what is known about the adoption process and the function of information in that process.

The best information on the subject has been collected by Everett Rogers[4] and other persons studying the diffusion of innovations through social systems. What this extensive body of literature (largely empirical) tells us is that rational adopters of innovations tend to go through a series of five stages culminating in adoption and that it is rare for any one of the stages to be skipped. Rejection of an innovation may occur at any point in the process. These stages are:

Awareness, in which the potential adopter learns of an innovation, or of some alternative to his current practice;

Interest, a stage in which the more cosmopolite and innovative of the potential adopters seek out additional, more technical information about the innovation;

Evaluation, during which the potential adopter makes an 'in-the-head' assessment of the relevance of the innovation to needs, to apparent advantages, and to potential problems for him;

Trial, in which the potential adopter (again, a smaller number of the more innovative members of the social system) makes an actual field test of the innovation on a limited basis. The least innovative members of the social system, the 'laggards,' as Rogers calls them, are likely to skip this stage, since they can see the benefits that adopting the innovation brings to the majority of their peers who have already adopted the innovation.

Adoption, the final stage, when the adopter decides to make full-scale, continuing use of the innovation until it is replaced by something even better.

Of particular importance in fostering the spread of an innovation is the fact that potential adopters tend to use different information sources at different stages of the adoption process. Thus, using the Ross and Halbower terminology, it is necessary to use a variety of initiating mechanisms in order to stimulate and spread the adoption of a new practice or product. The types of information sources used in the various adoption stages are summarized in Figure 1, following.

Sources of Information Used in the Adoption Process

Adoption Stage	Information Source
AWARENESS	MASS MEDIA
INTEREST	INTERPRETED, TECHNICAL INFORMATION INTERPERSONAL COMMUNICATION
EVALUATION	INTERPERSONAL COMMUNICATION
TRIAL	DIRECT EXPERIENCE INTERPERSONAL COMMUNICATION
ADOPTION	DIRECT EXPERIENCE INTERPERSONAL COMMUNICATION LIMITED TECHNICAL INFORMATION

Figure 1.

As you see, awareness of new practices and materials usually comes from exposure to the mass media and, as might be expected, the more innovative and cosmopolite members of a group are the first to become aware, since they tend to read more, to reach out toward outside information sources, and generally to look outside their own social system.

Those who are sufficiently aware and interested to seek more information about the innovation then turn toward more technical information sources which provide more detailed information, such as government bulletins, integrative reports, or expert advice. The more innovative the adopter, the more likely he is to use technical information sources; the less innovative, the more heavily he will rely on interpersonal communication, particularly with individuals he knows and believes to have more expert knowledge.

During the pre-trial evaluation stage, all potential adopters rely most heavily on interpersonal communication with earlier adopters. The very early adopter may use expert consultants, or change agents such as the county agricultural agent, but the important point is that during the evaluation stage, adopters prefer to learn from people rather than from documents.

In both trial and adoption stages, the direct, first-hand experience of an adopter and the advice, assistance, and encouragement of expert consultants or even earlier adopters are the most important information sources. Clearly then, our attractive, four-color brochures and individual reports of projects, so popular among most educational dissemination personnel, are useful for little more than making others aware of the existence of an innovation. Such communications are unconvincing for those same potential adopters as they move closer to evaluation, trial, and adoption of the new practice, and may even mislead naive persons.

There are a number of other generalizations we can draw from the literature on dissemination and utilization of knowledge in fields other than education, but, in the interest of saving time, let us turn our attention to some of the distinctive characteristics of educational change. Ronald Lippitt[5] has pointed out that there are two clear differences in programs of social change, such as education, when compared with change in the physical or biological sciences.

The first of these is that educational changes are rarely limited to 'thing changes,' but are usually 'people changes.' Put in less cryptic form, this means that most innovations in medicine and industry simply displace one product or practice with a newer, better one; but in education the central changes occurring in most innovations--team teaching, non-graded organization, even new curricula--are changes in role perceptions, attitudes, and behaviors of the adopters or practitioners. Quite clearly, a teacher who sees no change in her role, or who does not change her behavior when she leaves the self-contained classroom to engage in team teaching, is going to be very frustrated, very ineffective, or both. Some of the major problems in the instructional use of television have resulted from the fallacious assumption that television can do all sorts of wonderful things without any change in the operation of the school or the behavior of the teacher.

The second difference to which Lippitt pointed is that most educational changes are not simple adoptions of a solution developed elsewhere, but adaptations of the school to the innovation and of the innovation to the school. This means that it is vital to know both the essential conditions for the innovation to succeed and the unchangeable constraints within the school, so that any adaptation made in the innovation may actually result in educational improvement, rather than in maladaptation. A fascinating description of the maladoption of an innovation can be found in the last chapter of Carlson's "Adoption of Educational Innovations."[6]

If a State education agency is to facilitate spread of improved practice, it is essential that it tailor its strategy and activities to the actual conditions and constraints in the local school districts. You people know these constraints better than I, but allow me to suggest a few which are particularly vital in programs for change.

Perhaps the first immutable constraint that influences educational change is the pluralistic nature of American public education. It is a truism in organization theory that complexity and diversity in any operation impedes rapid movement of the component parts of the organization toward a common goal.[7] Conversely, of course, pluralization permits differential response by parts of the organization to diverse conditions in various parts of the client population. It is obvious that American education is (and ought to be) pluralistic, since ours is a large, heterogeneous society which is unlikely to be served adequately by a monolithic educational system. The tradition of local control of education does guarantee some responsiveness of the educational system to local requirements and the primacy of State responsibility does assure a concern for social requirements above those of any single local community. Further, legislation at the national level in recent years suggests some national educational goals accompanied by safeguards for the protection of State and local requirements.

Put briefly, the pluralistic system of education we have in this country appears to conform to American values, but it does make the problem of system-wide change slower and more difficult. This dictates closer working relationships and more explicit differentiation of functions at the State and national levels.

A second major constraint to educational change in the United States is the diffuse, inexplicit nature of educational goals.[8] One of the most powerful predictors of adoption of an innovation is the relative advantage of the innovation over current practice. When the goals of an organization are not stated in clear, measurable terms and when there are conflicts among goals, it becomes difficult to identify any clear advantage in any single practice over any other. This suggests the need for more precise, operational, and attainable educational goals if the pace of educational improvement is to be accelerated. The State education agency is the most appropriate and likely source of leadership for overcoming this constraint; but let us recognize that explicit goal definition is, in itself, an educational innovation. As a result, we may anticipate a somewhat slower spread of educational improvement than improvement in other areas of human endeavor.

Still another constraint upon educational change is our limited scientific tradition in education. It has been said, by a person whose name escapes me, that human endeavors may be plotted between two poles: experience-based practices and science-based practices. It seems rather clear that most educational practices fall far toward the experience-based pole. Until there is increased use of the expanding knowledge base in education to carry on educational programs, it seems doubtful whether our schools can expect to work continuously toward ever-improving educational practices. There is need, then, for more effective communication of verifiable knowledge to educational practitioners in forms that are both understandable and relevant to their work. Likewise, there is need for increased efforts in both pre-service and in-service education to increase the competence of educational practitioners in using and assessing scientific knowledge.

Still another constraint in educational innovation lies in the fact that there is no single locus for making and implementing educational decisions. Remember that an innovation is likely to be adopted if the adopting unit--be it a person or an organization--perceives greater relative advantage through adoption of the innovation than in continuing current practice. In most areas of endeavor, it is possible to identify a single decision-making locus: in agriculture and medicine, this locus is a point, the individual farmer or physician; in industry and in military organizations, the decision locus is a line, the command or managerial line. Compare this with education, where most changes of any significance involve a number of congruent decisions in different loci: policy decisions by the school board, management decisions by superintendents and principals, subject matter decisions by supervisors, and implementing decisions by each classroom teacher involved. However, one fact stands out: unless the superintendent, who can allocate resources and provide rewards for innovative behavior, is supportive of an innovation, it will not be installed. Thus, it is essential that superintendents of schools be provided information and assistance which will help them make rational choices among alternatives. Efforts must also be made, of course, to communicate with and assist the decision-makers and implementers at other levels, who are necessary participants in the adoption process. If such assistance is not provided, the superintendent may believe he is leading a parade down the street to improved educational practice, only to find that even the band is not following him.

III. Resources of State Education Agencies for Change

Let us turn briefly to a consideration of specific characteristics and capabilities of the State education agency as a facilitator of change. Here, again, there is no doubt that you who are State department officials are more knowledgeable than I about this question, but it may be useful to see yourselves through the eyes of an outsider.

Underlying all other considerations, the statutory position of the State as the responsible agent for education in the United States dictates a leadership role in educational improvement by the State education agency. Two underlying implications of this central role of the State agency in determining and implementing educational policy deserve explicit discussion. First is the obvious fact that quality education requires a certain critical mass of resources if there is to be real equality of educational opportunity for all our children. With the wide divergence in tax base among school districts, the State is the most natural governmental unit to serve as the planning base for education, even when individual needs and characteristics of local schools are honored. Secondly, it has been argued[9] that local school programs must necessarily reflect the prevailing norms of the local school district, with the possibility that the needs of all members of the community will not be recognized and dealt with. For example, we can identify communities where eighty-five percent or more of the public school graduates go on to higher education. The objectives and curriculum of the schools in this community are likely to stress academic excellence over all other possible educational values. Yet the fifteen percent minority in that community may well be part of the majority of public school students of the entire State. The only assurance that their needs will be served equitably is the mediating influence that State educational policy may have on local norms.

A second major resource of the State agency is its unique position to provide educational leadership to all public schools. Perhaps one of the most salutary changes in American education in the past few years has been the degree to which State agencies have recognized and assumed their responsibility for a leadership role. This role is a natural one, both because of the State's role as the responsible governmental agent for educational policy and because it is in a more favorable position than individual school districts to draw upon external resources for educational improvement. Let me also suggest that the degree to which the State agency is assuming its leadership role is reflected primarily in the number, quality, and character of its communications on professional matters to educators, the public, and the legislature which it serves.

This brings us, of course, to a third major resource of the State agency as a facilitator of change: its unique position as a source of expert advice and staff service to the legislative and executive branches of the State government. There is evidence that State legislatures view the State agency as a major, in many cases, the major, source of assistance in formulating educational policy.[10] Through the types of communications it provides to the Governor and the State Legislature, the State agency can assure the development of sound, rational State policy on education and provide the intellectual basis for the policy makers to make fiscal and other decisions which will permit implementation of that policy.

A fourth unique resource of the State agency in facilitating change is one which is usually perceived as an inhibitor of educational change--its regulatory function. Let me suggest that although regulation can be performed in a manner which is deadening and inhibiting, it can also be used as a means of encouraging educational improvement. Assuring the presence of qualified teachers is a regulatory function but one that should assure better, not worse, education. If certification requirements are used as a means of preventing trial and assessment of staff differentiation in the schools, this can inhibit educational change; however, such inhibition results more from the way the regulation is implemented than from the standard, itself. The regulatory function can also be used to encourage more explicit statements of educational goals at the local level and to assure justification of proposed new courses of action. If exercised in this way, it is possible to develop procedures for regulating educational improvement rather than for blocking it, and to have guidelines for further waiving of regulations under appropriate conditions, or even for amendment of regulations in a manner consonant with changing educational needs.

Finally, of course, the role of the State agency in educational finance should be a powerful instrument in fostering educational change. The role will not be used in this way, however, if all financial transactions between State and local educational agencies are based on formula grants. Most innovation involves some degree of risk-taking. It requires the potential for acquiring or re-allocating money for trial and installation of changes. The State can facilitate change by providing risk capital, fiscal flexibility, and reward for efforts to improve educational programs.

IV. Implications for Action

In the final analysis, the implications of the issues we have discussed relating to actions you might take are limited by the resources, constraints, and values of your own State. I suggest, however, that you may be able to define your unique role as a facilitator of change if you consider how the resources available to you can be applied in assuring the presence of the three essential conditions for installation of educational innovations. This may be viewed as the matrix shown in Figure 2, next page.

State Education Agency Resources and Essential Conditions for Change

	Conditions for Change in the Schools		
SEA Resources	New Knowledge to Schools	Capabilities of Schools	Performance Feedback in Schools
1. Statutory Role			
2. Communication - Leadership			
3. Staff Service to Legislature and Executive			
4. Regulatory			
5. Finance			

Figure 2.

In the function of transmitting new knowledge to schools, the State agency can have the greatest and most immediate impact on local change processes, first, because of the State agency's intermediate position between local and national resources and, second, because such a function can be performed independently of the local district.

To perform adequately in transmitting new knowledge to the schools at times and in forms which are understandable and usable, the State agency must first have the capability of taking in, processing, and then communicating a continuously growing body of research, theory, and reports of good practice in education. This can be done best by establishment of a State agency information center which links distant resources to local needs. Without such a center, State dissemination efforts can only be intermittent, unfocused, and partly effective.

Unfortunately, we are not doing very well in systematically receiving, processing and communicating valid, needed information. In a recent study of educational information services in education, it was found that only thirteen State departments of education operate any kind of systematic information service.[11] Even though, through the Educational Resources Information Center (ERIC), educators can acquire as much as seventy percent of the current body of educational research and related information, few school district personnel outside urban centers or university towns have direct access to ERIC materials. Further, there are few State education agencies or local school districts which systematically feed into the ERIC system reports of their own experience which have utility for other educators.

Let us consider what the characteristics of an effective State educational information system might be. In order to do so, it is essential to consider first of all how the educational community behaves as information users. To begin with, educators, like practitioners in other fields, tend to be apathetic about seeking out new knowledge.[12] There is evidence that practitioners make first and most frequent use of the most accessible information source, even when they believe that the source does not provide very good information.[13] It follows, then, that unless accurate information is at least as accessible as inaccurate information, it will be inaccurate information which will reach educators. Thus, information services must be as close as a local telephone call.

We also know that educators, like other practice groups, only more so, prefer interpersonal communication to print or other mass media.[14], [15] Indeed, the most likely effect of providing teachers or administrators vast quantities of materials to read is that they will ignore what has been provided them. In a recent study of the characteristics teachers and principals want of their information systems,[16] they ranked the desired characteristics of an information system as shown in Figure 3.

Information Service Characteristics Preferred by Educators

Rank	Characteristic
1	Easy Access to Information
2	Currency of Information Provided
3	Evaluation of Material Provided
4	Comprehensive Coverage
5	Rapid Response to the Query
6	Thorough Documentation
7	Flexibility in Amount of Detail

Figure 3.

One might say, on the basis of these data, that unless we provide comprehensive, up-to-date, and screened information to educators, rapidly and with minimal effort on their part, we cannot expect to have them use any information service.

We have already discussed the information sources used by potential adopters of innovations as they move through the adoption process. Recently, Havelock[17] has stated that not only different formats but different types of information are required in the process of adopting and installing an innovation. He summarizes this under the acronym, DAETEIM.

Information Requirements for Rational Adoption of Innovations

Stage	Questions	Needed Information
Diagnosis	How am I doing?	Current performance data
Awareness	How can I do better?	Alternative solutions to my problem
Evaluation (Pretrial)	Will it work for me?	Settings and conditions where the innovation succeeded (failed)
Trial	How can I do it?	Sources of expert assistance How to adapt to local conditions
Evaluation (Posttrial)	How did I do?	Comparative effectiveness of old and new practices
Installation	How must I change?	Needed resources and actions to make the innovation work operationally
Maintenance	How do I continue?	Resources and actions needed to continue and modify the innovation

Figure 4.

So, if the State agency is to facilitate effective utilization of knowledge in improving education, it must be prepared to tailor information both in format and content to the information requirements of persons having different educational roles and at different stages of the adoption process. Unless its program is based upon continuing assessment of the characteristics and needs of its users, it will be a waste of money and effort.

An effective and responsive information system will have to engage in a number of different functions if it is to provide the products and services needed by the system users. Let us consider each of these elements briefly.

The functions of the information system will include:

Acquisition: The process of collecting and screening information.

Processing: Indexing, abstracting, and other treatment of the information, so that it may be stored and retrieved effectively and efficiently.

Storage: Maintenance of the file of information, so that it is readily accessible.

Search and Retrieval: Methods of locating in the file the most highly relevant information required in a rapid, efficient manner.

Information Analysis: The tailoring of the raw information retrieved to maximize its relevance and utility for the user.

Dissemination: Providing the information to the user in the format that best meets his requirements.

The products of such an information system may either be basic products, or derived products. Basic information products are those which are provided to the user more or less in the form in which they were acquired. Examples include data, research reports, and reports of current practice. Derived products are those resulting from treatment of the basic information in forms to make them most useful for the user. Whereas graduate students and researchers may be satisfied with basic information products, most practitioners are more likely to need derived information products. Examples of these include abstracts, for brief descriptions of individual documents; information analyses which integrate the content of many pieces of information to indicate broad findings, generalizations, gaps in current knowledge, and so forth; and referral lists, which indicate to the user where he can find more information, sources of expert advice, and sites where he can observe a new practice in action.

The services required by most users include: query negotiation, in which the agent of the information system attempts to specify the information need more precisely, thereby spreading the search and the increasing relevance of the information provided; output screening, in which the retrieved information is examined to assure its relevance to user needs; and client briefing, in which the agent of the information system consults with the user to determine whether his needs have been met and if additional efforts are required.

Since effective use of a modern information system usually requires qualified information specialists assisting the user, and since educators rely so heavily on interpersonal communication, it is doubtful whether any but the smallest States can expect to have a single information center serving the needs of all educators. As a result, it is quite likely that a fully matured educational information system for a State will have a State information center coordinating and serving a series of local information centers located to serve a number of contiguous small districts or one large urban school district. The model of regional service centers or boards of cooperative educational services now exists and only waits to be adapted to provide information services, as well as the other services they now provide.

No doubt, this all sounds terribly expensive and complex. It is, but is such a system to assure that educational decisions are based on the best current information any more expensive than the human and financial costs of educational changes which fail to improve our schools? Agreed, the costs of one such system in each of the fifty States boggles the mind, but through inter-State coordination and differentiation of functions at State, local, and national levels, it is possible to provide highly sophisticated information services in both an effective and cost-beneficial manner.

Let us explore how this might occur. First, through use of the ERIC system, the State agency can provide access to a current bank of over 30,000 separate documents which is growing at the rate of 1,000 per month. By using an ERIC-generated product, the Current Index to Journals in Education, published by Crowell, Collier, and MacMillan, it is also possible to search an index to articles in some 200 journals, updated monthly. In addition, the School Research Information Service of Phi Delta Kappa provides access to reports of current practices in schools.

What is missing for a complete national file is ready access to documents generated in all school districts and all State agencies. If each State agency were to set up a campaign for continuous collection of documents generated within the State, screen out those of purely local or State interest, and feed those of more general utility into ERIC or SRIS for processing and announcement, it would contribute to the national bank of educational information without having an overwhelming information processing burden of its own. It could also benefit from having access to all the information generated in other States.

In like manner, the Office of Education, through the ERIC clearinghouses and a special research interpretation program called the Targeted Communications Program, is generating information analyses on problems of significance to educational practitioners. As you may know, the reports generated in the Targeted Communications program are repackaged into PREP (Putting Research Into Educational Practice) Kits, which are provided to each State agency for its use. The State agency may, if it wishes, simply announce the availability of PREP Kits and make copies available to interested educators; but it may also adapt these materials to fit more closely to State and local needs and make them part of their own dissemination program.

Through such efforts as these, a State educational information system can build upon national resources and focus most of its efforts on information search, retrieval, and user services for its own clientele. A central State agency information center can provide direct services to its own personnel and to elected State officials, and serve as the locus for planning and pilot operation of a service prior to establishment of local information centers. When such centers emerge, funded, perhaps with Title III or other Federal monies, the State agency role moves from exclusive emphasis on operations to one of coordination and leadership.

Since this presentation has been going on for an inordinate period of time, let me simply plot out some of the factors relating to how the State agency may increase the innovative capabilities of local schools and facilitate improved needs assessment and goal attainment, leaving it to you in your discussions to put flesh on these bare bones.

Since we know that community concern for and participation in educational dialogue enhances the innovativeness and responsiveness of schools[18/] the State agency, in its leadership role and in providing staff services to elected State officials, might well place emphasis on the need for effective two-way communication between the school and the community and may in time look toward regulations which mandate increased efforts toward such communication.

Both in its administration of Federal funds and in State financial policy, it may be possible to provide 'risk capital' for innovative programs as well as incentives for local schools to seek changes which lead to educational improvement. In such programs, it is highly advisable to require commitment of local funds to the innovative effort from the very beginning, with increasing allocation of local resources as the project progresses. There are data both in education[19] and outside[20] that an innovative program which involves the use of local monies from the beginning is more likely to be installed than one which receives full funding from outside sources.

Again, since openness to new knowledge and to statements of need are good predictors of innovativeness, encouragement and recognition of such openness by State agency personnel may do much to increase a school district's innovativeness.

In order that we do not get lost in specialized jargon, let me reiterate that Ross and Halbower use the term, fostering performance feedback, to mean the degree to which an organization specifies its goals in measurable terms and communicates to its members about the degree to which goals are being attained.

Both as a leader and a regulatory, the State education agency can enhance improved performance feedback transmissions within and between school districts. As a leader, the State agency can do this by communicating to local districts about means of defining goals operationally and assessing the degree of their attainment. In some cases, it may even be possible to stimulate Statewide participation in development of model educational objectives. As a regulator, the State agency may require operational specification of objectives in proposals for Federal or discretionary State funds (as I understand Utah is now doing), it may even require by regulation that participation in certain State programs be based upon operationally-stated objectives, or it may even offer incentives for provision of undisputable evidence of satisfactory performance.

Finally, since evidence of performance is quite understandable and attractive to elected officials, the State agency, itself, should shape its communications to the State legislature in performance-oriented terms whenever possible, and stand ready to assist in formulation of legislative proposals for improved goal definition and performance assessment in education.

At last, to the relief of all of us, I shall close. This presentation has ranged widely and overlong. If I am to leave you with any coherent thought, it is this:

The State department of education is potentially the most powerful agency for educational improvement in American education. The degree to which it reaches its potential is contingent upon the degree to which it exercises its full resources for facilitating change and the degree to which it bases its efforts on full application of the extensive body of knowledge on means of spreading and installing educational change already available to us. One of its most viable means of having immediate impact is through improvement of communication of new knowledge to local schools. In this endeavor the Office of Education stands ready to participate as a partner.

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by W. James Popham

In the shadow of dramatic advances in the field of instructional psychology, we educators have been quite properly reminded how imperative it is that this increased instructional sophistication be directed toward defensible educational outcomes. In the last several years, particularly as a consequence of ESEA Title III program requirements, the phrase needs assessment has been employed to describe that operation which is designed to identify those areas of educational deficiency most worthy of amelioration.

Needs Assessment Defined

Since this discussion will focus on specific problems and solutions associated with the conduct of educational needs assessments, a definition of such operations is warranted at the outset. Briefly, educational needs assessment is a technique for identifying those educational objectives which most need to be accomplished in a given instructional situation. The conception of an educational need in this context is a standard one. First, a desired learner outcome is identified. Second, the learners' current status with respect to that outcome is ascertained. The difference between the current status and the desired status is considered to be an educational need. This conception is represented in Figure 1.

DESIRED LEARNER OUTCOMES	minus	CURRENT LEARNER STATUS	equals	AN EDUCATIONAL NEED

Figure 1.

Once having identified a number of educational needs, the most difficult task of the needs assessor is to rank these in some way so that the educational system can be directed toward the satisfaction of the most important needs.

There has been growing acceptance of the view that to adequately determine the learners' educational needs we must be attentive to a wide variety of educational outcomes, rather than to only the customarily sought types of intellectual achievements. As a consequence, those working in the needs assessment arena are now urging educators to consider the identification of needs with respect to objectives in all three domains of learner behavior, that is, the affective, cognitive, and psychomotor. By cognitive, of course, we refer to intellectual types of learner outcomes. Affective needs pertain to attitudinal, valuing, or emotional types of learner outcomes. Psychomotor needs are associated with a learner's physical and motor skills.

Yet, while this general approach to needs assessment has received substantial support from those individuals actually engaged in such activities, anyone who has attempted to implement this general strategy has discovered that the job is not simple. There are several very thorny problems which must be resolved, whether the needs assessment is conducted at a national, state, or local level.

Problem Number One: Identifying Educational Preferences

In establishing what we wish our students to become, it must be recognized that this operation is exclusively one of valuing. There are no formulas which, if implemented, would obviate the necessity of someone reaching judgments regarding what educational goals ought to be established. But even recognizing that one's values are usually held with varying degrees of defensibility, we still encounter a number of practical difficulties in determining value preferences regarding educational goals. This is complicated, of course, because of the diversity of groups who might wish to influence the establishment of desired educational outcomes. For example, let us assume for the moment that those conducting an educational needs assessment identify parents as individuals who should have a voice in the establishment of educational goals. How are such parental preferences identified? Does a staff member from a needs assessment project interview parents and ask them, in essence, "What do you want your children to be like at the end of their schooling?" One suspects that responses to this general question would be given at such different levels of generality that it might be impossible to categorize parental preferences in a meaningful manner. Similarly, if academicians (or any other group) were to be polled, what practical methods exist for getting definitive, manageable statements from those individuals.

Although several needs assessment groups have tried to approach this preference identification operation faithfully, the procedural requirements of securing an adequate set of preference data from potential contributors have not been resolved.

Problem Number Two: Identifying the Learners' Status

A problem of equal difficulty involves determining the learners' current status with respect to a variety of educational outcomes. Through the years, educators have been inclined to use standardized achievement tests for determining the learners' current abilities. Recent advances in measurement circles, however, suggest the thorough inappropriateness of using typical standardized tests for such assessments. The unsuitability of such tests rests upon a basic distinction between norm-referenced and criterion-referenced approaches to measurement.[1] A standardized test is, generally, a norm-referenced test and is designed primarily to identify an individual's status with respect to a norm group, that is, other individuals who have completed the same test. Because of the necessity to produce variant scores, scores which permit comparisons among individuals, standardized tests are often unable to represent the complete range of learner behaviors which we need to know about.

Criterion-referenced tests, on the other hand, are designed to measure a learner's status with respect to a specified performance standard and, as such, are more suitable for purposes of needs assessment. Unfortunately, criterion-referenced tests do not exist in quantity. No established commercial test distributors have developed a sufficient number of criterion-referenced tests to be of any real utility to a needs assessor, and without such tests one cannot adequately measure the learners' current status regarding the outcomes in which we might be interested.

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[1] Popham, W. J., and Husek, T. R. "Implications of Criterion-Referenced Measurement." Journal of Educational Measurement, Volume 6, No. 1, Spring 1969.

Problem Number Three: Contrasting Preferences With Status

Referring back to the general model for identifying educational needs (Figure 1), it is important to note that learners' current status must be contrasted with (usually subtracted from) desired learner outcomes in order to determine an educational need. Particularly because of the unsatisfactory methods being used to establish educational preferences and learner status, these comparisons are not easily produced. For example, what happens if a group of businessmen respond in rather general terms to a needs assessment interviewer that they are looking for young men and women who can perform different kinds of clerical tasks, while actual data regarding learner post-high school clerical competencies are very specific. Comparisons are difficult, if not meaningless. The procedural problems of contrasting current learner status with preferred learner outcomes are very real and have not yet received sufficient attention from those involved in educational needs assessment.

Collections of Instructional Objectives and Related Measures

As can be seen from the three problems previously identified, the primary difficulties of implementing the usual needs assessment model are procedural. While we may have the wisdom to devise a general strategy, the primary technical deficiency rests on inadequate vehicles for securing the right kind of data.

One significant advance in recent months has been the establishment of an agency which is attempting to collect large numbers of instructional objectives, stated in measurable terms, plus sets of devices to measure each of these objectives. With the existence of such collections of objectives and items, some procedures for dealing with each of the three problems identified above can be devised. A systematic approach to needs assessment employing these objectives-items collections will be described in the remainder of this presentation.

Before turning to those procedures, however, the principal agency where these objectives and items are being collected should be briefly described. The Instructional Objectives Exchange, established by the Center[2] for the Study of Evaluation at the University of California, Los Angeles, was created approximately eighteen months ago in an attempt to serve as a national depository and developmental agency for sets of operationally stated objectives and for measuring devices which could be used to assess the degree to which such objectives had been achieved. The Instructional Objectives Exchange (IOX) is currently collecting and, as its resources permit, making available to any educator collections of objectives and measuring devices in a number of fields.

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[2] The Instructional Objectives Exchange was established as one component of the Center's Project for Research on Objective Based Evaluation (PROBE). The activities of PROBE are guided by the following committee: Marvin C. Alkin, Eva L. Baker, Madeline C. Hunter, Ron G. McIntire, W. James Popham, and Rodney W. Skager.

Wishing to see many teachers use its services, that is, wishing to have more teachers identify their objectives in measurable terms, IOX is currently distributing objectives according to commonly used subject matter and grade level categories. One might secure an IOX collection of mathematics objectives in grades K through three or reading objectives grades four through six. Similarly, a collection of objectives might be prepared for a senior high school geography course or a junior high school woodworking course. At a later point, it is anticipated that IOX objectives will be reclassified according to categories which may be more functional than typical subject-grade boundaries.[3] In every case, insofar as its resources permit, the Exchange is distributing with its objectives sets of test items or other procedures for measuring those objectives. The existence of such collections and related measures makes possible a systematic approach to needs assessment which will solve the major problems identified above.

Three Domains

When one considers a three-domain attack upon educational needs assessment, this IOX service becomes even more critical. There are relatively few instructional objectives available, even as models, which deal with affective learner behavior or with certain kinds of cognitive and psychomotor behaviors. The Exchange is attempting both to develop and to pull together those scattered sets of such goals so that exemplary collections of hard-to-devise objectives will be available. More importantly, perhaps, measuring devices for assessing attainment of such objectives will be produced.

To illustrate, it is well known that simplistic measurement approaches cannot be used in gauging a learner's attitudes. Sophisticated approaches must be employed which eliminate cues as to how the learner "should" respond. Similarly difficult is tapping high level cognitive abilities, such as analysis and synthesis. Equally taxing is the measurement of psychomotor behavior where subjective appraisal is required, such as in judging a student's gymnastic performance. We cannot expect each separate needs assessment project to have the resources or the expertise to develop such objectives and measures. The task is too immense. It is precisely for this reason that the Instructional Objectives Exchange was established.

Problem Number One Solved

By presenting sets of measurably stated objectives to the potential reference groups, that is, the groups of individuals whom the needs assessment staff wishes to involve in its survey, the needs assessor can derive a systematic set of preferences because the sets of objectives can be presented in a relatively constant form to the various groups. For instance, let us suppose that we wish to involve representatives of (1) the *community*, (2) the *learners*, themselves, and (3) *educators* in establishing the desired goals of an educational system. A set of objectives from the IOX collection, each perhaps accompanied by a sample measurement item to more clearly communicate the nature of the objective, would be presented to representatives of each of these three groups. It might be necessary to modify the language of the objectives somewhat for the different groups, for it may not be realistic to expect young learners and certain community representatives to understand the technical language which would be comprehensible to educators. Even with such modifications, however, the basic set of objectives would remain the same.

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[3] The development of alternative classification schemes is being supported by a contract with the U. S. Office of Education, Division of Comprehensive and Vocational Research. This contract is also supplying considerable support for the collection and development of IOX objectives.

We could ask these groups to appraise the objectives in a variety of ways. A very simple approach, for example, might ask the representative individuals to rate or rank each of the objectives for purposes of its possible inclusion in the school curriculum. Ratings might be supplied according to the degree of importance the individual attached to the objective. These ratings, for example, supplied on a five-point scale, could be used in developing average estimates of the importance attached to each objective by the particular group involved. The preferences of the several groups could be arrayed in a relatively simple manner which would permit comparisons among the average ratings for each objective and, of course, the identification of those objectives considered most important by all groups. Similarly, objectives considered unimportant by all three groups would, once identified, undoubtedly be eliminated from further consideration. In instances where there was significant disagreement among the participant groups, further exploration among group representatives might reveal the reasons for such disagreement and, possibly, a way to reconcile the disparate ratings. On the other hand, in such instances of disagreement it is perfectly reasonable to attach more weight to the preferences of one group than to another. This is a philosophic issue which would clearly have to be faced by those conducting the needs assessment.

Problem Number Two Solved

As indicated before, the use of norm-referenced tests for the assessment of current learner competencies is impermissable. However, the existence of pools of test measures for the objectives which are being used makes possible the ready preparation of criterion-referenced tests. A set of such items, randomly drawn from the available pools, could be administered to the learners and data could be secured regarding the degree to which the learners were able to master the objectives. These measuring items are not necessarily designed to produce variance among learners. They are simply designed to be congruent with the objective and, as such, represent the most adequate reflection of the objective's attainment. The avoidance of standardized tests and the use of such criterion-referenced test items (for each objective indentified as desirable, on the basis of preference data) will yield a far more sensitive reflection of current learner status regarding each objective.

Problem Number Three Solved

Since both the objectives and the test measures employed are drawn from the same agency, comparisons of preference and current status data are rendered far more simple. We would only have to calculate the average preference estimates for each of the involved groups, then identify the percent of students mastering the objectives. These comparisons could be presented in summary form such as seen in Figure 2.

	PREFERENCE DATA			PERFORMANCE DATA
	Mean Ratings			Pre-Instruction
Objective	Community	Learners	Educators	%Mastering
#1	4.3	4.6	4.4	14
#2	2.1	2.5	3.1	68
#3	1.2	1.4	1.5	20
#4	4.7	2.1	4.0	31
#5	3.1	4.6	2.0	84
etc.				

Figure 2.

It is now necessary, of course, to make those difficult decisions regarding which objectives, among competing alternatives, reflect the most important educational needs. While we do not yet have a simple computer program which could take such data and pump out a precise identification of the most crucial student needs, a careful appraisal of such information should yield far more enlightened choices among alternative needs than by using currently extant schemes.

Person and Item Sampling

In using the procedure recommended here, it is important to use *sampling* procedures judiciously throughout, both with respect to sampling the people involved and to the *items* to which they are responding. For purposes of economy, we would undoubtedly wish to select only a sample of individuals from the several clienteles involved. For instance, if we wished to use teacher groups in a State-wide assessment, then we ought to employ sampling procedures so that we do not burden all teachers in the State with the task of rating objectives. Similarly, samples of students would need to be chosen for testing purposes.

While the value of such person sampling is generally recognized, the utility of *item sampling* has not been comprehended by most needs assessment personnel. Item sampling permits one to administer different items to different people to obtain a group estimate. In other words, if I am testing one hundred students and wish to know how the one hundred students perform on four objectives, I might constitute a test of four separate parts, each part reflecting one separate objective, then randomly administer each of the different sections to only twenty-five students. Since a sizable portion of the class would be responding to each test item, I could secure a perfectly adequate indication of the degree to which students could master those items.

Similarly, we need not subject parents to the necessity of rating hundreds of objectives. We could, instead, put together a variety of different short sets of objectives and let randomly selected parents rate anywhere from ten to twenty objectives, thereby taking no more than a few minutes of each parent's time. The use of person sampling and item sampling procedures is requisite in the economic implementation of this approach to needs assessment.

Problem Number Four: Insufficient Collections of Objectives-Items

Unfortunately, at the moment, this approach to needs assessment can only be implemented on a far smaller basis than is desirable. The reason for this restriction is that we currently do not have sufficiently large collections of different objectives and items to permit its wide-scale implementation. While there are some collections, primarily available through the Instructional Objectives Exchange, we need many more such collections of objectives and items. Here's where all educators, your group in particular, could be of considerable assistance.

You can help provide those objectives-item collections in two ways. First, by contributing any objectives-item pools not already possessed by IOX so that they can be made available to those wishing to perform this kind of educational needs assessment. Secondly, by supporting the development of objectives-item pools of particular interest to your needs assessment operation. The technical procedures for developing objectives and items exist. The only limitation in developing such collections is the limited resources now available in the Instructional Objectives Exchange. On a contract basis, additional pools of objectives and items could be provided and shared in hard-to-measure areas.

A Self-Correcting System

While not all of the problems to be faced in implementing this approach to educational needs assessment systems have been identified, for it has not been used on a wide-scale basis, certainly the strategy is sufficiently manageable to permit improvement as it is employed.

Through the assembly of collections of instructional objectives and related criterion measures, coupled with the efforts of those who would systematically determine educational needs, we will surely increase the quality of our educational needs assessment operations so that we can identify the educational objectives we really ought to be pursuing.

The evaluation of the three regional Title III ESEA workshops on "Facilitating the Creative Educational Change Process Through Effective Management" is reported in two parts: Part I - Procedure for Evaluation and Part II - Summary of the Results of Evaluation.

PART I - PROCEDURE FOR EVALUATION

All three regional workshops had the same goals. The goals were:

1. To increase understanding and competency in developing strategies and techniques in the assessment of educational needs.
2. To provide orientation for new Title III Coordinators and for State Advisory Council members.
3. To increase understanding and competency in developing strategies and techniques in educational accountability.
4. To provide an opportunity to discuss individual State problems.
5. To increase understanding and competency in developing strategies and techniques in dissemination and evaluation.
6. To assist State educational agencies in the development of strategies in the areas of staff development, educational needs assessment, evaluation, and dissemination to complete the FY 1970 Title III State Plan requirements.

To determine the degree to which these goals were achieved, two types of evaluation instruments were developed: (1) A pre- and post-conference test to measure individual and group changes in attitudes, knowledge, and understanding of certain components in Title III program management; and (2) a post-conference questionnaire to ascertain conferees' opinions of workshop strengths and weaknesses.

At each of the regional meetings, the pre-test was given on the first day and the post-test on the last day. The same instrument was used for the pre- and post-test. The tests were identified by code number so that individual changes between tests could be determined. The post-conference questionnaires were distributed and collected on the last day. A total of 178 State Title III staff members, chairmen of State Advisory Councils, members of USOE Title III staff, and other State and local educational agency personnel participated in the five-day conferences.

Not all the participants remained for the full five days. Some of the States sent one team of representatives for the first two or three days and replaced it with another team for the rest of the week because it was difficult to have any one staff member remain away from his office for the full five days or because they wanted as many staff members exposed to this conference as possible, even if to only half of the conference.

In addition to the data gathered by the pre- and post-test and the post-conference questionnaire, valuable data concerning the strengths and weaknesses of the conference were gathered through careful assessment of the reports that were written and submitted by the small group workshops.

PART II - SUMMARY OF THE RESULTS OF EVALUATION

"This is the best USOE conference I've attended!" ... "The conference reinforced ideas I already had." ... "No, I believe that the objectives of the Thursday program were not met." Such were the sentiments expressed by the conferees. Other results of the evaluation of the three regional conferences are summarized under the six general goals of the conferences.

Conference Goal 1. To increase understanding and competency in developing strategies and techniques in the assessment of educational needs.

When the conferees were asked, "Do you feel that the conference succeeded in helping you assess your State's educational needs?", about sixty-eight percent of the ninety-four respondents said, "yes," and thirty-two percent answered, "no." Nevertheless, when the same conferees were asked, "In connection with which administrative area do you feel that the conference was most successful?" the largest number of persons, sixty-nine, or about seventy-four percent of the respondents, answered, "Needs Assessment." Perhaps some of the twenty-six participants who felt that the conference did not succeed in achieving this objective expected the conference to give more specific examples of the "hows" instead of the "whys" of conducting State-wide needs assessment.

Most conferees agreed that needs assessments should focus on the learner instead of on instructional resources. About eighty-three percent of the respondents in the pre-test and about ninety-four percent in the post-test agreed that focusing of needs assessments on instructional needs such as numbers of teachers, school facilities, and instructional materials is not sufficient to bring about progress in meeting learner needs.

Almost all conferees believed that State-wide achievement testing can help identify learner needs in the cognitive domain but only forty percent of the respondents in the pre-test and fifty-five percent in the post-test believed that needs assessment as generally practiced can identify learner needs in the affective domain.

Conference Goal 2. To provide orientation for new Title III coordinators and for State advisory council members.

A large portion of the first day of the conference was spent in general orientation of new Title III State coordinators and State advisory council members by members of the State Plans for Educational Innovation Branch on the status and changes in the ESEA Title III program.

When the conferees were asked, "Did the conference clarify questions you may have had regarding regulations, procedures, etc., in connection with the administration of Title III?", about eighty-eight percent of the ninety-four respondents said, "yes."

This is the conference goal in which the pre- and post-tests showed the highest degree of success. Only sixty-two percent of the sixty-two respondents in the pre-test, but ninety-four percent in the post-test, were able to identify the amount of funds appropriated for ESEA Title III in Fiscal Year 1969.

Only sixty-five percent of the respondents in the pre-test, but ninety-five percent in the post-test, knew that the State advisory councils send their annual reports to the National Advisory Council and to Congress through the State education agency.

Only thirty-seven percent of the respondents in the pre-test, but ninety-three percent in the post-test, knew that the CPIR has replaced the Title III Statistical part of the State Annual Report form.

Conference Goal 3. To increase understanding and competency in developing strategies and techniques in educational accountability.

About sixty-two percent of the ninety-four respondents to the post-conference questionnaire were favorable to the concept of educational accountability; twenty-one percent were either skeptical or believed the concept to be vague. The remaining respondents had reservations on certain parts of the general concept such as, for example, the provision for penalties. When the respondents were asked what kind of help the U. S. Office of Education might give to bring about educational accountability, a large number suggested providing more information or conducting regional training sessions on accountability.

About seventy-one percent of the ninety-four respondents said the conference was helpful in giving them guidance regarding strategies and techniques to be employed in bringing about educational accountability. About seventeen percent said the conference was partially helpful and twelve percent said it was not very helpful.

The pre- and post-tests showed some progress in the area of accountability. Only fifty-two percent of the respondents in the pre-test but eighty-four percent in the post-test were able to define "educational accountability" correctly. About ninety percent of the respondents in the pre-test but ninety-seven percent in the post-test defined "performance objectives" correctly. About eighty-six percent of the respondents in the pre-test but one hundred percent in the post-test were able to define "performance criteria" correctly.

Only forty-eight percent of the respondents in the pre-test and fifty-five percent in the post-test agreed with this statement: "A performance contract requiring specified results in a specified time and budget with rewards or penalties according to results delivered is desirable." Nevertheless, a little over three-fourths of the respondents believed that the concept of accountability for educational results can be applied to the Title III program by the States. The pre- and post-test reactions to the desirability of educational accountability is interesting. Thirteen persons who believed in the desirability of accountability in education in the pre-test changed their minds in the post-test. On the other hand, nineteen persons who did not believe in the desirability of this concept expressed agreement in the post-test.

Conference Goal 4. To provide an opportunity to discuss individual State problems.

Time and place was set aside for small group or individual consultations with the speakers or with USOE or SEA staff members each day. Respondents indicated in the post-conference questionnaire that this was "the first opportunity they had had to meet advisory council members from other States," that "time set aside for sharing experience" was profitable. About thirty percent of the respondents said that "miscellaneous" experiences of the conference were as important as the structured program.

Conference Goal 5. To increase understanding and competency in developing strategies and techniques in dissemination and evaluation.

About eighty-six percent of the respondents in the pre-test and about ninety-seven percent in the post-test agreed that State educational agencies must develop procedures for evaluating projects and bringing about the adaptation and adoption of promising practices in Title III programs.

It is interesting to note that in the pre-test fourteen persons out of the sixty-two respondents disagreed that States have a responsibility to commit State resources to the adaptation and installation of innovation in local schools. At the end of the conference, every respondent agreed with this idea.

ESEA Title III is considered a cutting edge in the change process in education. But only forty-four percent of the ninety-four respondents thought that the conference gave them a clear understanding of what constituted effective management leading to the creation of educational change in the State departments. The largest number of negative responses, twenty-six percent, wanted more information that would give them a clearer understanding; another four percent said not enough time had been spent on the subject. A small number, four percent, said application of the concept was questionable. Nevertheless, the percent of respondents who believe they can have considerable influence upon changing educational programs in their own State departments went up from fifty-two percent in the pre-test to seventy-three percent in the post-test.

In Summary

The conferees were asked, "Generally, overall, how would you rate this conference?" They were asked to check a point on a ten-point scale, with one being "poor" and ten being "excellent." About sixty-three percent of the ninety-four respondents rated the workshop eight or higher.

Rating Scale	Percent Response
1 - 4	0%
5	3%
6	11%
7	23%
8	44%
9	13%
10	6%
Total response 94	Total percent 100%

APPENDIX

Workshop Participants

	CSSO	SAC CHAIRMAN	SAC MEMBERS	STATE TITLE III COORDINATOR	SEA STAFF	OTHERS	TOTALS
Alabama				X	2		3
Alaska		X		X			2
Arizona	X	X		X	3		6
Arkansas				X			1
California		X		X	2	X	5
Colorado		X		X			2
Connecticut				X			1
Delaware				X			1
Florida		X		X	6		8
Georgia		X		X	X		3
Hawaii		X		X	X		3
Idaho		X		X			2
Illinois					2		2
Indiana				X			1
Iowa				X	X		2
Kansas		X		X			2
Kentucky				X			1
Louisiana		X	X	X	X		4
Maine				X			1
Maryland				X	3		4
Massachusetts			X	X	X		3

	CSSO	SAC CHAIRMAN	SAC MEMBERS	STATE TITLE III COORDINATOR	SEA STAFF	OTHERS	TOTALS
Michigan				X			1
Minnesota				X	2		3
Mississippi		X		X		X	3
Missouri		X		X	X		3
Montana		X		X	X		3
Nebraska		X		X			2
Nevada		X		X			2
New Hampshire			X	X	X		3
New Jersey					X		1
New Mexico				X			1
New York				X			1
North Carolina		X		X	X		3
North Dakota		X		X			2
Ohio		X		X			2
Oklahoma		X		X			2
Oregon		X		X			2
Pennsylvania			3	X	6	X	11
Rhode Island		X		X	X		3
South Carolina				X	X		2
South Dakota		X		X	2		4
Tennessee				X			1
Texas		X		X	X		3
Utah		X		X	X		3
Vermont			X				1
Virginia			X	X	X		3
Washington				X			1

	CSSO	SAC CHAIRMAN	SAC MEMBERS	STATE TITLE III COORDINATOR	SEA STAFF	OTHERS	TOTALS
West Virginia				X	X		2
Wisconsin		X		X			2
Wyoming				X			1
D. C.				X	2		3
B. I. A.*				X		2	3
American Samoa				X			1
Guam				X	X		2
Puerto Rico		X		X	X		3
Virgin Islands		X		X			2
Trust Territories			X	X			2
U. S. O. E.						16	16
N. A. C.**						2	2
Totals	1	27	9	54	48	23	162

* Bureau of Indian Affairs
** National Advisory Council